

PLAYMETER

Volume 3 No. 21

November, 1977

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PLAY METER

Volume 3/ No. 21

November 1977

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 Game Doctors
 Correspondents: Roger C. Sharpe
 Dick Welu
 Mary Claire Blakeman
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 J.W. Sedlak
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 Art Direction: Meyer Alewitz
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 Typography: Skybird Typography
 Circulation Manager: Debbie Barnes
 Advertising Representative: Ralph C. Lally II
 European Representative: Esmay Leslie

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PLAY METER

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FROM THE EDITOR

Setting aside the remote possibility that medical science will have come up with a method of extending the average human life expectancy beyond 100 years, one can be reasonably certain that by the year 2077 no one reading this article will be alive. Agreed that's not a very cheerful thought to bring up, but it reminds us that the world around us and things in it will survive us all. That happens to include the coin-op amusement business and the AMOA or whatever the industry's national association will be called in the year 2077.

This obviously conjures up the thought, what will the AMOA show be like in 2077? What will our children's children see and hear at Expo 2077? Will the pendulum of progress swing to the point where machines are designed to play games of humanoid sports, as the cover of this month's issue depicts?

It may not be possible to describe the 2077 AMOA show in today's terms. An adequate description would probably be beyond our comprehension. But it does appear that some things are certain to happen by the year 2077, and the things I'm referring to are not beyond our comprehension; quite the contrary, I'm referring to things the industry is faced with today. Today's problems will have been solved-- commissions, taxes, economics, security, and the like.

It is fairly certain that there won't be any operators alive who will still be operating on a 50/50 commission structure. The Tri-Centennial operator of 2077 will have a very reasonable and workable system which I prefer to call the "Variable Commission System." This is a commission arrangement whereby the commission on each machine varies. A very costly, short-lived arcade piece, for instance, might go for anywhere from five to ten percent for the location owner; and a rather inexpensive, low maintenance piece, on the other hand, might go for up to fifteen or twenty percent to the location owner.

I would also venture to say that future operators won't be wasting a lot of time counting money on location. In fact, the whole collection process will probably take a little less than five minutes. Two electronic devices both keyed differently-- one kept by the operator and the other by the location owner-- will activate a memory device on a piece of equipment. All pertinent information regarding the immediate past performance of the machine will be printed out in duplicate instantaneously, indicating total plays, replays, extended time, and of course an earnings breakdown complete with commission computation. The collector will simply make out a check payable to the location owner and leave with the money in a self-contained locked box.

The AMOA show of 2077 will no doubt be the biggest ever. There will be two shows actually-- one in March to start the arcade season which will be moved from city to city and the other in the fall,

as is the custom today, and held in the fair city of Chicago. Why will it be the biggest show ever? Because the industry will still be in a stage of growth. In fifty years this industry has been able to attract roughly six percent of the general population. By 2077 that figure will have at least tripled and have a not-so-mere 82 percent left to grow. Hence, the biggest show ever.

And will there be a NAMAMOA [National Automatic Merchandisers Amusement and Music Operators Association]? Probably not, the two associations will probably have gone their separate ways. NAMA will likely continue to have a music and games exhibit if the response from this year's show is any indication. NAMA members who happened to notice the amusement exhibit area were delighted with it because it was so interesting and it kept their children amused. The exhibitors, on the other hand, had mixed feelings on the subject. Half said they would come back next year, and the other half said they wouldn't. Since NAMA has nothing to lose and everything to gain by having them back, they probably will.

What will the machines at the 2077 show be like is anybody's guess. Equipment may not have evolved to the point where machines are playing each other on other machines, but it would be safe to say equipment will exist that is far beyond our wildest dreams.

What will the Expo issue of Play Meter be like in 2077? Hopefully, it will be a lot like this, only bigger and better. Because as the industry gets bigger and better, so does Play Meter.

Since this is our fourth AMOA Anniversary Issue, I would like to extend my sincere appreciation to all our subscribers here and abroad who have given us the loyal support over the years. I am especially grateful to the ten-plus percent of our U.S. subscribers for participating in Play Meter's annual subscriber poll. I am pleased to announce that the results of the poll are in this issue. I can proudly say that it is by far the most comprehensive and most significant survey ever undertaken by a trade journal for the industry. Rather than the opinions of manufacturers and distributors, the Play Meter poll reports facts and figures reported by legitimate operators from all across the nation. We welcome anyone to challenge the poll's findings and deeply appreciate the hundreds of subscriber operators who participated and helped make this survey possible.

A final note, we look forward to meeting with you at our booth [C-57] at the AMOA show in the Continental Room on the upper level. See you there.



Ralph C. Lally II,
Publisher & Editor

Midway Grows...

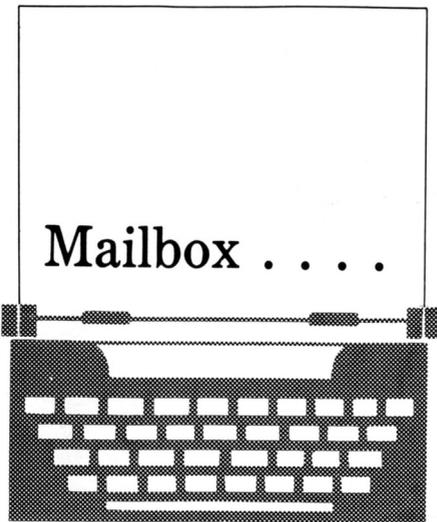


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Critic's Corner believers

My wife and I read Roger Sharpe's monthly "Critic's Corner" with great pleasure.

Pinball has been our personal pasttime for many years. As a hobby, we recondition older vintage machines, and find taking a poor, old beaten-up pinball and putting it in as nearly the original condition as possible very rewarding. It's a toss-up which we like more, playing or repairing.

In closing, we are looking forward to Roger's long awaited book and, of course, many additional installments of "Critic's Corner."

Bob and Tori Ayers
Denver, Colorado



Tech Editor responds

After reading Fred McCord's response to my Breakout article in Mailbox—September, I find myself a bit puzzled. While it is true that 4016's are susceptible to static regardless of the system that they are used in, it is also a well-known fact what input buffer failures do to static are a very common fault in video games. This raises a few questions about Atari's intentions regarding Breakout, which I understand is still in production.

Is Breakout now produced with 4016's or 4066's? Does Atari plan to distribute 4066's to the people who are operating unprotected Breakouts? Will Atari alter any existing Breakouts? Will Atari

stand behind their distributors and authorize them to perform the modification?

As a method of preventing further unnecessary losses due to downtime, perhaps more effort should be made on the part of Atari to inform the owners and servicers of Atari equipment as to common faults and their solutions.

Robin Minnear
Game Doctors
San Jose, California

Logic comparator

I am interested in obtaining the complete parts for building a logic comparator board. What I would actually like are the circuit board and the logic parts needed.

Your articles in **Play Meter** for February and March on building the logic comparator, I felt, were very informative.

Philip Barney
Russell-Hall, Inc.
Holyoke, Massachusetts

BACK TO SCHOOL SPECIALS



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ATARI Tank II	895
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CHI COIN Speed Shift	645
EXIDY Oldtime Basketball	795
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EXIDY Destr. Derby	945
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FUN GAMES Tankers	695
FUN GAMES BI-Plane	795
GREMLIN Blockade	995
GREMLIN Hustle	1095
MEADOWS Drop Zone-4 . .	595
MEADOWS Cobra Gun	995
MEADOWS Lazer Cm'd. . .	1145
MEADOWS Bonkers	995
MIDWAY Gunfight	1145
MIDWAY Tornado	
Baseball	1125
PSE Maneater	495
PSE Bazooka	1195
RAMTEK Trivia	595

RAMTEK Hit Me	1245
SEGA Road Race	995
SEGA Fonz	1095
SEGA Tracer	1145
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CHI COIN Shoot Out	895
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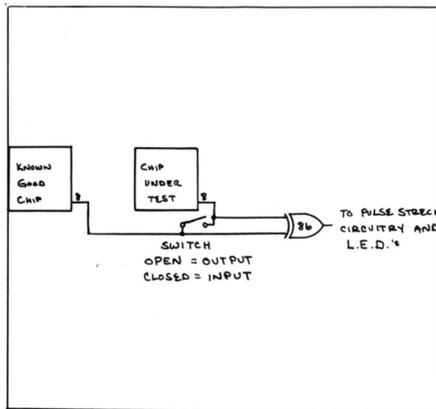
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[Ed—Because of limited response concerning circuit boards for logic comparator I will not be producing them at this time. For those who still intend on building the comparator, I have a slight change which will cause a little less confusion when reading the LED's. This also uses a less expensive switch. By hooking the compare circuitry up in the way shown below, you no longer have to disregard the readings on the pins that are input pins. Notice



that the switch is now a S.P.S.T. instead of a S.P.D.T. When the switch is in the output position, the two chips are being compared. When the switch is in the input position, all the inputs (including the 7486's), are tied together, this will cause the corresponding LED not to light. This change, for the better, was brought to my attention by Charles Rowland of Richmond, Virginia.]



AMOA's strength

The question is asked: What gives AMOA its strength? The answer is: AMOA has the abiding interest and informed loyalty of the operator. AMOA was founded by operators and the bulk of its membership is made up of operators, with a strong and much-appreciated supporting membership from other categories. Its purpose is service to the operator, and as long as AMOA serves the operator, it will in effect serve the whole industry, and it will prosper.

AMOA membership is open to all operators regardless of size—small, medium, large. AMOA is not oriented toward, nor dominated by, any particular group. Any operator member, regardless of size, who has the will to work, may be elected to officer leadership. The small as well as the large operators feels comfortable in the AMOA. Which is another reason why operators hold this association, their association, in such high regard.

During the past year it has been my privilege to work closely with President Garland B. Garrett, Sr., who was once himself a small operator. For that reason he is mindful of the operator's problems, and it was he more than anyone else who organized the AMOA mechanics schools this year, which have served the operators so well. We all owe President Garland Garrett a warm vote of thanks for his successful efforts on behalf of the operator and the national association.

Frederick M. Granger
Executive Vice President
AMOA

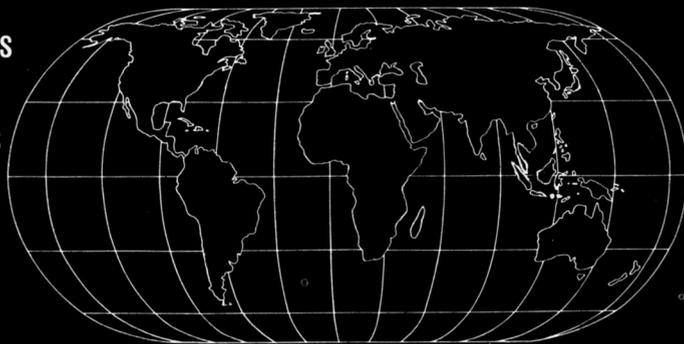
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Coinman of the Month

GARLAND GARRETT



Garland Garrett, Sr., president of the AMOA and this month's Coinman, started his career in the coin-op industry back in 1936 in Danville, Virginia. Back then an area operator who was recovering from minor surgery needed a driver to chauffeur him around for a couple of weeks. Mr. Garrett, however, remained around a little longer than two weeks—about fifteen years to be exact.

There was a brief spell of 23 months in between jobs for Southern Vending Company in Danville, when he worked for a shipyard in Wilmington, North Carolina, but then a return visit to his old employer was all that was needed to get him back into the fold.

In the early 1950s he finally struck out on his own. He noticed that there were no cigarette machines on the streets in Wilmington; so he moved back there for the sole purpose of going into the cigarette machine business. He bought out a few cigarette machine vendors and quickly his business began to grow. He was also in partnership with a friend in another line of coin-op equipment and in 1955 bought him out. "From there I just continued to grow," Garrett said. He bought out one business after another and found himself acquiring more and more jukeboxes and arcade pieces, as well as auto-photo machines.

At present his operation extends into five states—North Carolina, Tennessee, South Carolina, Florida, and Georgia (around the Augusta area).

Though he once operated about 130 auto-photos, that total is now down to 75. His cigarette machines still comprise a large part of his operation, about 140 to 150 machines. He also operates about 250 jukeboxes and, in the summertime, about 1,750 amusement games. That amusement game figure,

however, drops to around 1,000 during the winter months because he does good business in the summer months in the resort areas.

Mr. Garrett is 59 years old, married (his wife's name is Evelyn). His son, Garland Garrett, Jr. works in the business with him. And his daughter, Linda Jean, lives in Danville, Virginia. In all, this month's Coinman has five grandchildren—all boys.

He's an avid fan of all major American sports—baseball, basketball, and football. And he's quick to add that the Atlantic Coast Conference is "probably the strongest in the nation." Mr. Garrett is a longtime Yankee fan who can talk firsthand about Babe Ruth, Lou Gehrig and all the other Yankee sluggers. He is especially fond of talking about having seen Phil Rizzuto break into the majors from the Yankee farm club in his hometown.

He's a nine handicap golfer who belongs to two country clubs, Pine Valley and Echo Farms. His busy schedule as president of the AMOA, however, hasn't left him any time to practice his golf swing, but he promises that come November he'll become a common sight once again on the fairways.

He is also very active in his church, The First Baptist Church in Wilmington, where he serves on the board of deacons and also on the church's finance committee. His other activities include membership in the local chamber of commerce where he belongs to a committee that is looking for new business for the area. And he also sponsors a little league baseball team and a bowling team.

For the past year he has been right in the thick of the copyright discussions with ASCAP, SESAC, and BMI. So with the registering date of January 1 fast-approaching, we thought this would be the best place to begin our discussion with the AMOA president.

PLAY METER: With the copyright law about to go into effect, what has the A.M.O.A. been doing recently with regard to this matter?

GARRETT: Well, we know the operators are going to have to pay eight dollars for each jukebox; the law has already determined that, but what we've been doing is concerning ourselves with the implementation of this law. How is the operator going to have to file? What information is he going to have to include when he files? These are important questions. According to the legislation, the operators are going to have to give their names and addresses, and either the manufacturer's serial number for each box or else some other explicit identification of the phono record player. Now, what we are going to try to get the copyright tribunal to go by—instead of the name and address of the manufacturer and the manufacturer's serial number is the phrase "other explicit identification of the phono record." You see, there is no need for the name of the manufacturer, and it doesn't make any difference if it's a serial number or a coded number that is assigned to each box by the copyright office. We're trying to simplify this law just as much as possible so that we can comply with it.

PLAY METER: And what do the performing rights societies want in the implementation of this law?

GARRETT: To start with, they feel—in fact, they have always felt—that eight dollars a box is too low. So obviously they are going to be trying in the future to jack the ceiling up. But, to answer your question, what BMI wants from the operator is a rather lengthy list. They want the name and address of the manufacturer, the manufacturer's serial number for each box, the name and address of the operator, the name and address of the jukebox lease (if there is one), the expiration date of that lease, the name and address of the records distributor, the number of records that are in the jukebox, the titles of the selections that are in the jukebox at the beginning of the calendar year, the additions and deletions during the course of the year, and the titles of the selections at the end of the calendar year. In addition, they also want separate certificates for each unit, instead of one certificate for multiple units. It's just impossible to comply with a request like that. It would take a stack of records a foot high to comply with some of their wishes.

PLAY METER: Obviously, BMI is asking for quite a bit of information. But what about ASCAP and SESAC. What are they asking for?

GARRETT: Well, ASCAP didn't ask for the same things explicitly. But to give you an idea, BMI's list is just two sheets; ASCAP's is maybe twenty. What ASCAP did was take each phrase of the law and break it down and give what they are asking for.

PLAY METER: Do you think the final implementation will be closer to what AMOA is asking or what ASCAP or BMI is asking for?

GARRETT: Your guess is just as good as mine on that. It was for that reason that we met with BMI and with ASCAP and SESAC and held lengthy discussions with them. The first meeting was with BMI, and it lasted about 2½ hours, and I think it

was a very worthwhile meeting. They asked many questions about our business, questions which, I think, showed that they don't know too much about our business at all. But I think that after their meeting with us they had a better understanding of our business. And the same thing held true of our meeting with ASCAP and SESAC. After that meeting, I think they better understood our position and how our business operates. One thing which really surprised them was the number of machines that we move from year to year. I estimate that about forty or fifty percent of the jukeboxes on an operator's route are moved in a period of a year. In my own business, for instance, about forty percent of the jukeboxes are moved within a given year. I operate in a resort area, and I might buy 20 or 25 brand new machines to cover my very best locations at the beach. They demand a new machine every year. And that new machine will stay there for about four months. And then, when the beach season closes, I bring those 20 machines in and put them on my 20 best locations, and I move the 20 machines that are on those locations to my second-best locations, and so on down the line for my third-best and fourth-best locations. The performing rights societies didn't realize that there was this much moving going on. They are familiar with background music where you put it in and it stays there for fifteen years.

PLAY METER: Do you now feel they will modify their requests somewhat?

GARRETT: I hope so. The AMOA tried to point out to them at the meetings that all that is necessary is for the operators to be identified by name and address and then there should be a certificate number or some kind of identification number which would be issued from the copyright office. We tried to show them that, because of the highly-mobile nature of our business, it's just not feasible for us to list our locations. Besides, listing by location is not authorized, nor is it appropriate. Listing by locations serves no useful purpose. If we had to list the locations then, with all the changes we make with our jukeboxes every year, in addition to the initial registration of 450,000 machines, there would have to be about 225,000 more re-registrations over the course of the year. Obviously, such voluminous and costly paperwork can only result in a drastic reduction in the net royalties that would remain for distribution at the royalty office. Also, if listing by locations were required, then moving a jukebox from one location to another would presumably invalidate that certificate. In fact, ASCAP had a request to this effect, that the operator pay an additional eight-dollar fee each time the jukebox is moved. Our attorney, Nicholas Allen has pointed out to them in a letter that this request was "utterly unreasonable, arbitrary, and capricious." He told them it would make the law confiscatory and destructive to the jukebox business. The primary consideration should be, quite simply, is the jukebox registered and the royalty paid? If it is registered, then the location of the jukebox is immaterial. If the box is not registered, then, obviously, it is in violation of the law. And such a result flies in the face of the

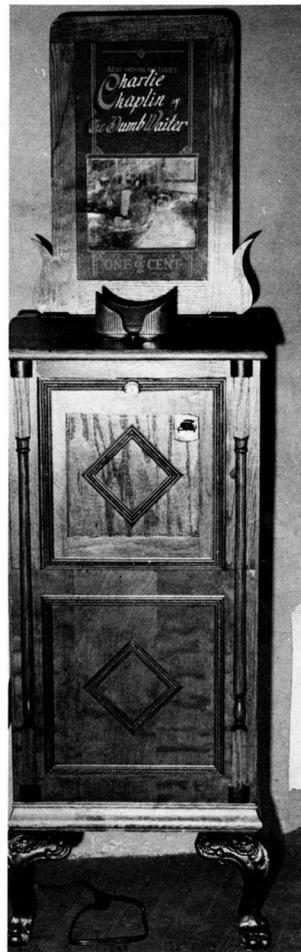
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realities of the business and it certainly has no support in the wording or the history of the law. The law is explicit. The whole purpose of the paperwork is to identify the phono record player only. It does not authorize identifying the locations. **PLAY METER:** Do ASCAP and the others now understand the operators' concern to keep knowledge of their locations to themselves? **GARRETT:** This is one thing we tried to get across to them. Nobody wants to have as public record the names and addresses of all his locations. If we had to list our locations, this would leave us wide open to "blue-sky" operations which would move right in and sell equipment direct to our locations. Look, someone could easily move right in and show the location owner how he could make more money if he had his own equipment. You can take a pencil and paper and a dozen eggs and if you keep on multiplying, you'll be a daggone millionaire. Take two rabbits, and you can do the same thing. It's very easy to sell someone on the idea that they can own their own equipment, but they don't realize the service that's involved. They don't realize the records should be changed every week on the jukebox. I have never seen a location that bought its own jukebox and didn't experience a fall in its cashbox take. When the location starts buying those records out of its own pocket, they don't think about changing them as often as they should, and for that reason, the jukebox play falls off. **PLAY METER:** It's quite obvious that there is still a lot about the copyright law that has to be resolved. Who will decide what goes into the implementation of this law?

GARRETT: The copyright tribunal which is composed of five people to be appointed by Congress will make the final determination. We've just gotten a list of the five appointees, but as far as I understand, they have not been confirmed by the Senate as of yet. I think what they are going to do is run a background check on these candidates and then confirm them. And it will be their duty to look at the law and see how it applies and study the recommendations from us and ASCAP and the others and then come up with something that, hopefully, will be satisfactory for everyone concerned.

PLAY METER: You said you have a list of the names. Could you tell us who is being considered for this assignment and what their backgrounds are?

GARRETT: Sure. Those people are Tom Brennan, who is a counsel for the Senate copyright committee; Clarence L. James, Jr., a Cleveland attorney; Frances Garcia, an accountant from Austin, Texas; Douglas Culter, a Vietnam veteran from Indiana; and Mary Lou Berg from West Bend, Wisconsin, who is the former deputy chairwoman of the Democratic National Committee. If confirmed, those five people will have the say-so over what transpires. Now, I might add that these people will be receiving a salary of \$47,500 each per year. **PLAY METER:** What would happen if something near to what ASCAP or BMI is asking would come to pass? If the copyright tribunal accepted something along those lines, do you think the

AMOA would consider taking its case to court?
GARRETT: Well, here I'm not talking for the AMOA but for myself personally, but if the copyright tribunal went along with something not pertaining to the law then, yes, I think the AMOA and the operators would go to court. If they would require me to list my jukeboxes by location, I personally would go to court before I would do that. The leadership of the AMOA, by the way, did discuss this point among themselves and the consensus was that the AMOA might make it a court case if the copyright legislation was made too difficult to comply with.

PLAY METER: What are some other things the AMOA considers essential in the implementation of this copyright law?

GARRETT: For one thing, single application for multiple machines should definitely be permitted. Then if you have 100 or 200 machines, you could send in all your applications at one time. The performing artist societies are talking about individual applications for each jukebox, but this again would require too much paperwork. Our whole purpose must be to make this law as easy to comply with as possible.

PLAY METER: Just one more question on the copyright law, how often will the jukebox royalty come up for review by the copyright tribunal?

GARRETT: It will come up for review in 1980, and then every ten years thereafter.

PLAY METER: How do you see the AMOA year in general as far as the membership?

GARRETT: I think that more interest has been created in the AMOA because of our mechanics school, for one thing. We have had several mechanics schools now on pin games, and they have been quite successful.

PLAY METER: Who's brainchild was it to have the mechanics' schools?

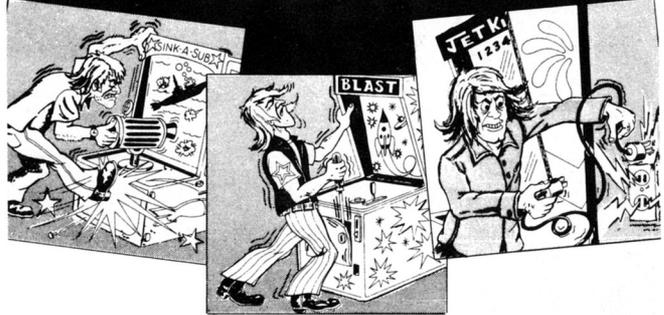
GARRETT: Well, the AMOA is always looking for new services for its members, and I have always believed that before a person can fix a solid state game he's going to have to know how to fix an electro-mechanical one. So it was my idea that we take the people that have been working with us and who were probably moving equipment around, answering a few service calls, and fixing a few minor things and give them a chance to step up. The idea was endorsed and approved by the AMOA board. They all liked the idea because everyone on the board feels like we need to bring in more people into this business. There's a shortage of servicemen, and we need to educate more people in this area. My idea was to start these men with the ABCs of mechanics, get them to read schematics, then getting them familiar with electro-mechanical and then letting them work their ways up from there. It's the same thing as starting out in the first grade then graduating on up until you're in solid state.

PLAY METER: How many schools have there been now?

GARRETT: We've had three schools in Smyrna, Georgia. Then a lady from Indiana who sent one of her men to the school liked it so much she wrote us a very nice letter and said if we would hold one in

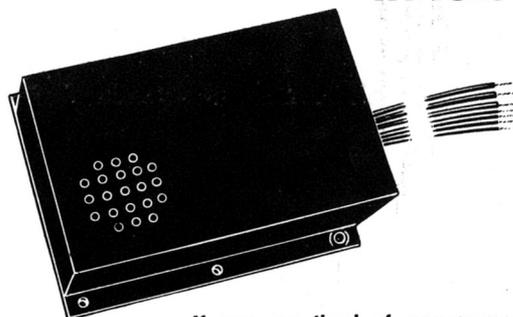
continued on page 98

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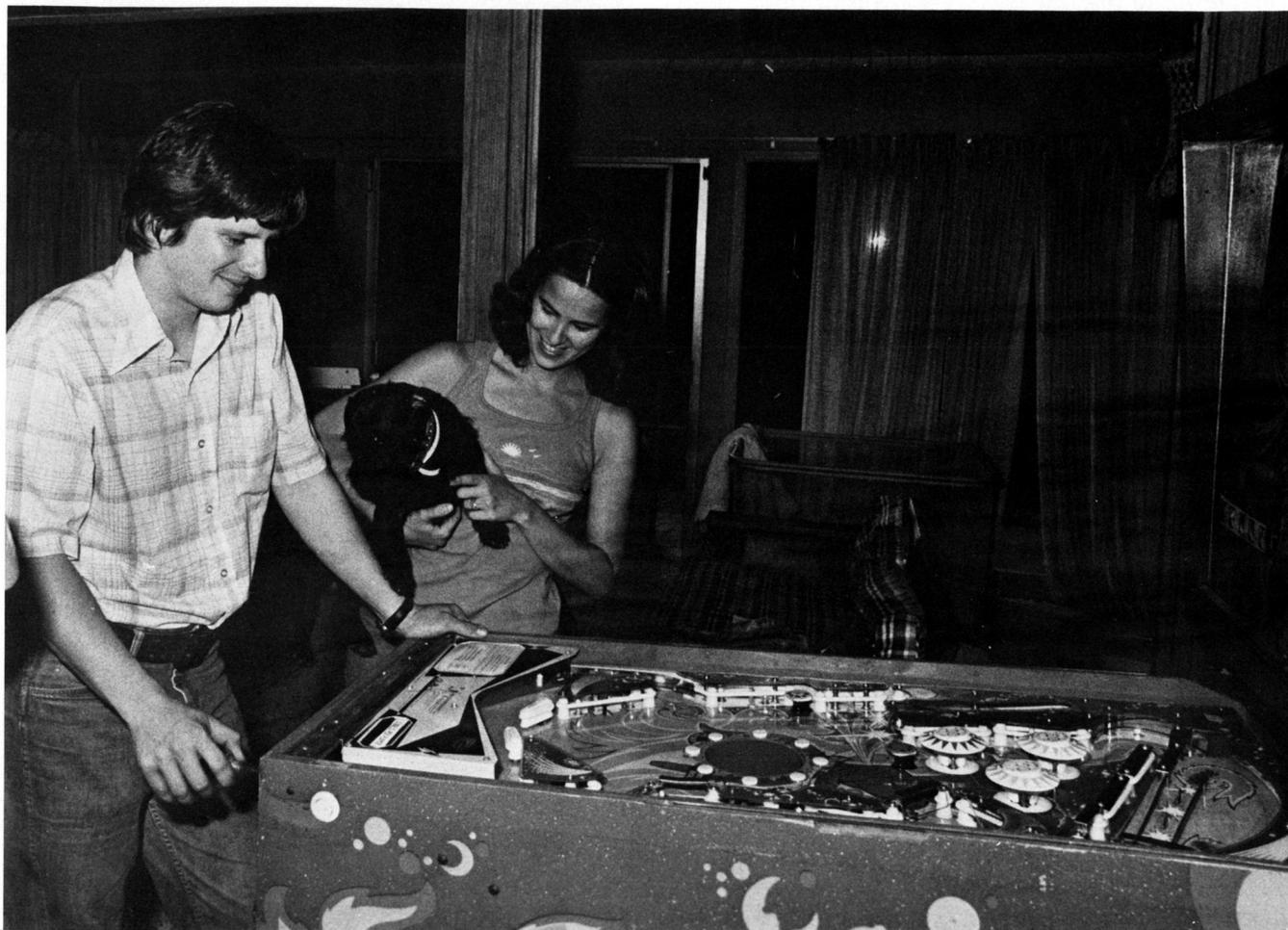


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OPERATING



Born-again pinball wizard?

There's a pinball machine in the President's home in Plains, Georgia. Chip and Caron Carter, pinball enthusiasts and members of America's First Family, recently bought the very popular Bally Fireball game and had it delivered to their home, which also happens to be the home of President Jimmy Carter.

Lee Martin, of Able Amusement Company in Macon, Georgia was the operator who sold the pingame to the Carters. With Chip Carter's permission, he was able to get excellent television coverage of the delivery of the pinball machine and of Chip playing the game. The television report incorporated the Carter pinball story with a story about Georgia operators' recent successful attempts to improve their image by forming an association.

Martin said he plans to forward a copy of the local telecast to CBS's "60-Minutes" production crew. The

popular television documentary show recently featured pinball machines on one of its telecasts and Martin is hoping that this new footage might lead into another favorable story for the industry.

After delivering the pingame, Martin said, "I consider this to be an important event in the history of pinball, notwithstanding the boost it will give to the present image of the industry."

He said that Chip and Caron Carter have been pinball fans for years and that "when they decided they wanted one of their own, Chip contacted me about the Fireball.

"He considers Fireball to be one of the truly great pinballs," Martin said as an aside.

He continued, "Naturally when he contacted me, I was only too happy to oblige. While we were setting up the machine, someone

asked Chip if there was a pinball machine in the White House. His reply was, 'No, but if I move back to Washington, I'm taking this one with me.'"

Martin was ebullient. "Can you imagine that?" he said. "A pinball in the White House!"

Martin said he also delivered six Bally Evel Knievel T-shirts with the Carter peanut warehouse insignia emblazoned on the back. Chip is presently employed at his father's peanut business in Plains, Georgia.

Chip Carter's Fireball may well be the most inspected game in the history of the industry. Martin told *Play Meter* that secret service men had to check the game thoroughly before they would allow the game into the house. "They wanted to make sure there weren't any bugging devices in it," explained Martin.

Crimebuster retained

Steve Olynyk, who personally smashed a quarter million dollars' worth of pinball games in a 28-year police career as a crimebuster, has been retained by the Association of Family Entertainment Centers (AFEC) to serve as its "conscience."

Gerard Blanchette, chairman of the board of AFEC, which groups ten of Montreal's largest companies specializing in coin-operated amusement machines, said Olynyk has been given an "open mandate to call the shots as he sees them."

And Olynyk, 55, who retired from the Montreal Urban Community Police Department two years ago, made clear he has no intention of "pulling my punches."

"I have agreed to act as AFEC's technical consultant because I know a number of the men involved and

they are honest businessmen. But if I find any shortcomings in the way they operate and if they refuse to remedy them, I'll blow the whistle. And I'll be available to help the police prosecute any violation of the law, whether it involves an AFEC member or otherwise."

Blanchette said the former police lieutenant, who has been called "the epitome of the tough and honest cop" by the Montreal Star and by The Gazette the "chief nemesis" of gambling, will be free to investigate each of the 58 centers of AFEC's members "at the time and under the circumstances he chooses, without prior notice."

"After each visit, he will report his observations to AFEC, and we will act on his recommendations. In short, he will serve as our conscience."

Blanchette said the hiring of

Olynyk was evidence of AFEC's "sincerity in adopting a declaration of principles and announcing that we would self-police our operations."

"It would be impossible to find anyone more severe in regard to amusement games than Olynyk. In the days when pinball games were illegal, he personally smashed a quarter million dollars worth of equipment and buried it in what later was to become the main parking lot of Expo 67."

Long one of Montreal's top racket investigators, Olynyk was second in command of the Montreal police social security squad—a special unit tackling organized crime in all its facets. It investigated such major fields of organized crime as gambling, arson, and bankruptcies, protection, blackmail, pornography, and fraud.



OPERATING

Pinball tournament

Southern Amusement Company of Clinton, Mississippi recently held its first pinball tournament and gave away as its first place award Big Top, an electronic home pinball game from Wico.

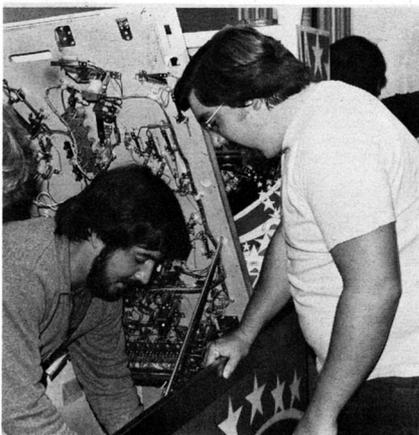
The nine next highest pinballers in the competition also won prizes and awards in the tournament, but there were no cash awards given. Said Billy Jones, president of Southern Amusement, "We didn't want the people to think we were using pinball machines for payoffs."

He added, "We feel the word *pinball* in our area now has a different meaning. A lot of skepticism has been eliminated. People who had put a lot of money into pinball machines to become good players were given the opportunity to use their talents in competition."

The tournament used a variety of fifteen flipper games and was run by tournament director Joey Aguzin. The competition took place at the Games People Play arcade in Jackson, Mississippi.

Said Jones after the competition, "The entire tournament was a success. We are definitely going to have a bigger and better one in the near future and strongly advise other companies to do the same."

The winner of the Big Top pinball game was Jeff Richards, 14, of Jackson, Mississippi. Portions of the tournament were also televised by ABC television affiliate WAPT, Channel 16.



Don Miller (center), AMOA instructor, is holding ten-day service schools which cover the basics in service work.

'Man of the Year'

Another coin machine division dinner is being planned by the Music and Amusement Association of New York, in behalf of United Jewish Appeal. MAA President Irving Holzman announced that the board of directors has selected Humbert "Bert" Betti of Demarest, New Jersey, to be "Man of the Year" at the gala industry fundraiser, December third at the New York Hilton Hotel.

Betti is chairman of the board of H. Betti Industries, distributors for Rock-Ola, Automatic Products, Moyer-Deibel, Atari, Kee Industries, and Stern Electronics. He founded the firm 45 years ago, and currently they employ 100 people, headquartered in North Bergen, New

Jersey.

Betti was born in Scotland, and came to the United States in 1927. He is married to the former Eileen Ellis. They have three children—Peter, Robert, and Susan.

"Bert was chosen to receive this honor because for many years he has been noted for exemplary professionalism in the electronic music-game industry," stated MAA Executive Director Ben Chicofsky.

The Coin Machine Division-UJA Dinner Dance traditionally has been a well attended social highlight. Last year, New York City Councilman-At-Large Eugene Mastropieri was the honored guest at an affair which yielded approximately \$60,000 in contributions.

AMOA's ten-day course

Earlier this year the AMOA started offering ten-day service schools for operators to send their people to. The purpose of the schools is to give the students a fundamental knowledge of electro-mechanics and, hopefully, to help put an end to what has become one of the industry's biggest problems today—a shortage of qualified mechanics.

The recent AMOA service school in Indianapolis, Indiana gave *Play Meter* a chance to look in on the school and report firsthand what the AMOA and course instructor Don Miller are offering operators for their money.

The ten-day school means just that—ten solid days of instructions with classes running from 9 a.m. to 5 p.m. and no breaks for the weekend. Saturdays and Sundays are regular class days; this is something which cuts down the amount of time the student is away from his job and also helps the operator as far as his other expenses for sending the student to the school.

The training program zeroes in on one of the major weaknesses in many routemen today, an inability to read schematics. Instructor Miller offers a detailed and exhaustive course on schematic reading which follows through with every circuit on the schematic and explains its

function.

His students are taught the proper shop procedures and are required as part of the course work to disassemble and reassemble the various units and understand how they work. In addition, approximately three days are spent doing actual troubleshooting on the machines using the schematics to find the electrical problems and using common sense to find the mechanical problems. Some attention is also given to digital flippers and some video problems are also discussed. The students are also made aware of low voltage and the problems it can cause, residual magnetism, and even how to use a jumper wire.

Miller's AMOA school leaves no stone unturned. He even gets into the public and fellow relations since he points out a person can't be just a mechanic. He must know how to get along with people. There is also time devoted to how to move machines and set them up in locations.

Students are required for the course to come prepared with a notebook, pencil, their own tools, and a desire to learn. The classes are limited to twenty students, an enrollment small enough to insure that every student is afforded individual attention. The enrollment fee is \$150 per student.

New Orleans Eight-Ball Tournament

With more than \$10,000 in cash and merchandise prizes at stake, over 4,000 men and women pocket billiards enthusiasts are expected to compete in this year's Third Annual Greater New Orleans Coin-Operated 8-Ball Pool Tournament, according to tournament director Bob Nims. The event got underway the week of September 19 at 32 co-sponsoring business establishments in the New Orleans area.

Nine consecutive weeks of qualifying rounds at each sponsor's location will determine finalists for the championship playoffs to be held at the local Marriott Hotel in late November, said Nims, who is also president of A.M.A. Distributors, Inc., a New Orleans amusement equipment firm which is again directing the tourney. Also sponsoring the event is Lucky Coin Machine Co., Inc., local operator of coin-operated amusement equipment.

A total of 382 cash, merchandise and trophy prizes will be awarded in the overall tourney. Included are \$2,400 in cash prizes for 24 winners and runners-up in the playoffs.

"Anyone can win one or more of the prizes because 8-Ball is that kind of game," said Nims. He said the tourney is open to all men and women of legal age (18 or over).

Each co-sponsoring place of business is holding one qualifying round weekly for eight consecutive weeks to obtain an equal number of winners. Each weekly winner is awarded a professional "Hustler" two-piece cue stick with a black leatherette carrying case. The eight weekly winners at each location will then compete during the ninth week for first place in one of three class divisions (A, B, C). The three division winners of each location will receive trophies and certificates making them eligible for the championship playoffs.

Pre-AMOA pinball seminar planned by Bally

Bally Manufacturing Corp. will sponsor a two-day seminar on its electronic flipper games in Chicago October 26 and 27, just prior to the AMOA show.

The pinball manufacturer has increased its staff and has stepped up its training program with course work being conducted by four Bally

representatives. Those four instructors which will be at the two-day seminar in Chicago are Jack O'Donnell, Darrell Blendowski, Chuck Wellestat, and Bernie Powers.

The class size will be limited and to insure a place in the class, interested operators should contact their distributors immediately.

Michigan association discusses ordinance with Detroit Council

The Music Operators of Michigan (MOM), which has been battling a proposed Detroit ordinance which would severely restrict pinball operators in that city (August *Play Meter*, page 14), was invited recently to the Detroit Common Council for an informal discussion on the proposed ordinance.

As expected, many Detroit operators also appeared at the meeting and spoke to the council on the impact of the ordinance. But what came as a surprise was that also in attendance at the council meeting and speaking against the proposed ordinance was a state representative from Detroit George Cushingberry who said he opposed the severe restrictions on amusement devices. He suggested instead a less drastic approach than what the city council is already considering.

The proposed Detroit ordinance would ban game machines within 500 feet of all schools in the city and reduce from eight to two the number of game machines in a location which would define a location as an arcade.

Several legal questions were raised at the meeting with the Detroit council concerning the proposed ordinance: whether Class "C" taverns will be exempted (they will be), and the absence of any grandfather clause which would protect any existing locations (licensed operators will be given more time to comply, but they too must comply).

At a later meeting with the council, the state association provided the council with an economic impact report which outlined the loss in jobs, wages, taxes to the city

and business to the location owners, machine operators, and distributors. The Detroit council has not yet commented on the report.

Carl Levin, Detroit City Council president, suggested that the industry set up some means of self-regulation which would be a sort of industry arm to head off trouble spots and correct any that developed. Subsequently, MOM members met to formulate a self-regulation program to submit to the council. The group finally came upon an industry watchdog committee that would be comprised of two Detroit operators, one council member or a council designee, a private citizen, the secretary of MOM or his designee, and a manufacturer or a distributor or his designee. That proposal has been submitted to the council but no report has been returned on the council's opinion of the makeup of that committee.

Walt Maner, MOM general manager, said that any further action on the proposed ordinance probably will not be done until after the elections in November. "The outlook appears good, but we can't let down for a moment," he added. "I feel reason will ultimately prevail in this matter. I'm encouraged by the good response of many businesses in Detroit. Our case has been well-received, and I think this whole matter is getting out of the emotional vein and into a more rational framework." He said that there has been a tremendous amount of help afforded MOM by distributors and manufacturers who have taken it upon themselves to help fight this ordinance.

Fowl Play



By Laura Kaufman

The coin clinks, the light blinks—then man and chicken engage in a unique battle of wits. The chicken punches a button in her "thinkin' booth." An "O" appears on the upper left-hand corner of the grid. "Your turn" flashes and the human presses a button on the scoreboard causing an "X" to light up in one of the squares.

The game may be old hat but competing against a live chicken in tick-tack-toe is a new experience. These birds are experts and spend six to eight hours a day pecking buttons in an amusement machine called "Bird Brains." Despite the long hours no fowl language is emitted when one of them is beat.

They never are. These hens employ some bigger brains to assist them.

Every machine is equipped with a computer which actually responds to the plays of the humans. As the chicken pecks the button, the computer chooses the best square in which the chicken's "O" should appear. Although the most one can achieve now is a tie, in the new machines it will be possible to beat the bird 20 percent of the time providing the player is competent.

Making sure the birds are competent contenders is the job of Mike Medeiros who is co-owner with Stan Allan of Money Making Machines of San Diego. While Allan heads the office and takes care of the administrative end of the business it is Medeiros's responsibility to train the chickens and make sure the machines are properly built.

"We start out the training by putting molasses on the signal light," Medeiros says (In a game a signal light in the "thinkin' booth" goes on, letting the chicken know it's time to peck the button). "The chicken will go for the smell and the taste," Medeiros continues. "After two weeks a feeder is put in her training cage which is similar to the machine except for the lack of a scoreboard or computer."

The feeder is a rectangular box which rests against the wall of the cage. There is a trough at the bottom just below the hole where the grain comes out. Inside the machine there is a little door which opens to discharge the feed. The chicken learns to recognize the click of the door after the game is over and to associate it with the reward of grain. She also becomes aware that the signal light goes off when the game is over.

Medeiros says that The Society for the Prevention of Cruelty to Animals investigated the facilities and gave them a clean bill of health.

"There's nothing detrimental as far as the box goes," he states. "The only stipulation was not to work the birds more than 12 hours a day."

Medeiros explained that "When the bird is fully trained, you can leave her idle two, three, or four weeks and she'll still play when you put her back in the box.

Only female chickens are used in "Bird Brains." Medeiros contends that roosters are too temperamental and can't work as long or as fast.

Because each "Bird Brain" machine is custom-made, Medeiros commissions specialists to work on each part. He hires carpenters to construct the wooden box which is painted rustically in shades of brown and yellow. An electrician is enlisted to hook up both the signal light in the "thinkin' booth" and the lights on the outside which illuminate the scoreboard. The computers are handled by an electronics man. A silk screener does all the "chicken scratchings" which include the scrawling of "Bird Brain" on a large oblong sign with artificially corroded edges.

Although it's rumored if the birds lose they'll be sent to Kentucky Fried Chicken, none have become "extra crispy" yet. If they do go up to that "big bucket in the sky" it won't be for five or six years as they are all certified by a vet who says that's their average life expectancy.

With the chicken's unique ability to draw a crowd, "Bird Brains" are placed in all kinds of situations. One is roosted in an amusement park. A company is renting out a machine as a promotion for their sale giving each person that beats the chicken a 10 percent discount on their merchandise. Other hens are visiting fairs and exhibitions around the country.

Why does "Bird Brains" enjoy so much success?

"People love to watch an animal perform," Medeiros says. "Where else can they see one perform for 25 cents? Almost everyone knows it's a computer, but they'll still play because they want to watch the chicken."



Parks exhibit space sold out

The Parks show is a sellout. The International Association of Amusement Parks and Attractions Exposition (IAAPA) at the Rivergate in New Orleans November 19-21 has already sold out all its exhibit space for this year, according to exhibits and trade show chairman Robert K. Bell.

Bell reported that roughly 300 companies will be represented in exhibits at this year's show. The demand for exhibit space was so great this year, Bell reported, that IAAPA added an outside exhibit area of 16,000 square feet. This is in addition to the 13,000 square feet of exhibit space inside the Rivergate complex. Last year's show was contained within the New Orleans exhibition center.

Among those that will be represented at this year's show will be delegations from five countries—Great Britain, West Germany, Italy, Switzerland, and Canada. The Great Britain delegation, with 18 companies represented in the show, will be the largest foreign delegation in attendance.

Among the new products the British will feature at the Parks show will be coin-operated money pushers, kiddie rides, and a shooting gallery.

Alfred Crompton Amusement Machines Ltd. will present the

Copper Canyon money pusher, available in free-standing, two-player and counter models. Equipped with an anti-tilt device, the machine has an attractive movement and offers high earning power in a small space. The player's winnings are automatically converted to tokens.

Two machines that dispense winnings in tokens to make them suitable for the United States will be displayed by Dennis Jezzard Ltd. The Tap A Coin is a single- or three-player machine which gives three chances to win with each coin. The Ding A Bell, for one, two, or eight players, challenges the player to slide coins down a field into holes of varying sizes and values.

Exhibiting for the first time in the United States will be Whittaker Bros. Ltd., a leading manufacturer of kiddie rides in Europe. On display will be two coin-operated rides, one with a swingboat movement and fitted with eight-track fairground music, and the other a fiberglass car. Another first-time exhibitor from Great Britain will be London Coin Machines Ltd. The London firm will show two driving games and the Dudes Canyon Amusement Machine, a four-player moving target shooting gallery with sound effects.

Coin Controls Ltd. will highlight

its coin acceptance and selector mechanisms. Also at the exposition will be casino-style slot machines and amusement devices by Bell-Fruit Manufacturing Company, coin pushers by Alca Electronics Ltd., and coin-operated radio-controlled amusements by Space Age Electronics.

In conjunction with the trade show, there will be a convention featuring a series of workshops from November 17-20. Some of those workshops and their times are as follows: smaller facilities workshop, November 17, 1:30 p.m. and 8 p.m.; a marketing workshop, November 18, 3 p.m.; an entertainment workshop, November 18, 8 p.m.; a safety and security workshop, November 18, 8 p.m.

In addition, there will be a special tour for the ladies of the IAAPA—a tour of the King Tut exhibit which is on display at the New Orleans Exhibit of Art. The annual banquet and show will be held November 20 with New Orleans entertainer Al Hirt as the featured entertainer.

Convention chairman for the Parks show is Truman B. Woodworth of Marriott's Great America in California. The exhibits will be open from 9:30 a.m. to 6 p.m. on November 19; 9:30 a.m. to 5 p.m. on November 20; and from 9:30 a.m. to 4 p.m. on November 21.

*Dudes Canyon
By London Coin Machines Ltd.*



*Indianapolis Super 400
By London Coin Machines Ltd.*



*Swing Boat
By Whittaker Bros. Ltd.*

Mr. Average and his operation

When it comes to measuring one's success in penetrating a market, there is probably no better standard than checking how Mr. Average is doing. Thus, after an exhaustive *Play Meter* survey (we polled thousands of our paid subscribers and received a response of better than ten percent), Mr. Average in the coin-operated amusement industry has emerged as someone who operates about 200 pieces of equipment in 75 locations.

He is, for the most part, still old-fashioned in his pricing structure, but seems to be changing with the times when it comes to electro-mechanical versus solid state.

One-third of the equipment he operates is pinball machines, and one-fourth is phonographs. Arcade pieces and pool tables follow in that order, with foosball tables, air hockey tables, shuffle alleys, wall games, and other amusement devices making up about 15 percent of his entire operation.

Mr. Average, it turns out, is a troubled soul. He bought more in 1977 than he did in 1976 (60 percent of the operators bought more phonographs and 69 percent bought more games), but he seems to be enjoying it less.

COMPLAINTS

His Number One complaint is the competition which he almost always refers to as "cutthroat." One of the *Play Meter* respondents described his competition as "greedy. Some operators," he said, "will do almost anything to get a location, and that includes paying the locations, giving

loans, and changing the commission split."

The second most heard complaint among operators concerns the locations. Said one northwestern operator, "Many location owners feel they are doing you a favor by letting you put your machines in their place."

Other operators complained that, because of this feeling, many locations demand loans and a better split.

The third most frequent complaint dealt with new equipment—its high cost and dependability.

Said one eastern operator, "The high cost of new equipment and the rate at which it has increased in the past three years is not only high, but the equipment is too flimsy to last." This operator also complained that, as a result, the operators' net is decreasing every year. "Changing the split," he said, "is not the solution because that will only encourage locations to buy their own equipment."

Another operator echoed the eastern operator's remarks about the dependability of the new equipment. Said he, "A lot of the games do not have the workmanship quality in them they used to have. Buy a new piece of equipment, and it does not function properly and you have a lot of service calls on it."

A third operator had his own theory about game designs: "I think a lot of the games are designed on Monday mornings when the engineers are still hungover from the weekends." He also complained that "many machines require you to

have midget hands for servicing, are poorly designed, or are designed not to be serviced at all."

Still another operator rattled off a litany of all the operators' complaints: "What I like least about the operating business is the new operators who would rather plow your ground than loom for new fields. Prices are rising ridiculously. Locations want 101 percent. Direct sales. Home games cost half of what I have to pay for coin-op pins. Home video games that kill what I have left in my older coin-op video games, and sky-high local licenses."

Interestingly, sky-high local licenses and concern about the image of the industry ranked very low among operator concerns. It seems that the operator is more concerned with the day-to-day bread-and-butter worries of the industry rather than the problems outside of the industry. This attitude may possibly explain why many operators are not joining their trade associations, which focus in on unfair taxes and a good industry image.

PRICING AND FREE PLAYS

Mr. Average still has his pin games set on five balls per play, two plays per quarter, though he's beginning to show signs of moving toward two games at three-ball play. His phonographs are all set on two plays for a quarter, though a few operators still have three plays for a quarter.

And only eight percent of his games are set on fifty-cent play, though 13 percent of his operation is pool tables and air hockey tables (prime candidates for fifty-cent play).

The free play on pin games averages nationwide at between 30 and 35 percent of the total playing time on the machines. And the second largest ratio of free plays to total plays is in the 30-percent-and-below category. Also, an estimated 14 percent of the operators operate add-a-ball features rather than free plays.

Mr. Average buys 3.24 records for each of his 50 jukeboxes (though no one yet has been able to explain how he buys .24 of a record). The breakdown of the music in his phonographs is as follows: rock, 48 percent; country, 25 percent; easy listening, 12 percent; rhythm and blues, 11 percent; and other types, four percent.

GAME BREAKDOWN

Of the 200 machines he owns, 66 are pinball machines, 50 are phono-

graphs, 30 are arcade pieces, 24 are pool tables, 10 are foosball tables, four are wall games, four are shuffle alleys, and two are air hockey tables.

Of those thirty arcade pieces of his, twenty are solid state, and the other ten are electro-mechanical. Only one out of every ten of his phonographs is new.

As far as his earnings for each game, the phonographs are still at the top of the heap, with an average earning of \$46 per week. Pinball machines and arcade pieces gross just a little less than that, \$44. Pool tables are steady earners at \$41, foosball tables are at \$39, wall games at \$33 per week, and shuffle alleys take in \$29.

BUYING NEW EQUIPMENT

Mr. Average bought nine new video games this year, 13 new pinball games, five new phonographs, five new foosball tables, three new non-video arcade pieces, and two other amusement pieces. In addition, he bought six used phonographs and 13 used games.

Although Mr. Average complains about the high cost of new games, he considers that of secondary importance when he is buying. What concerns him most of all when he goes shopping for new equipment is the distributor's repair service, how good is it?

Price is only his second consideration, and then only barely, because the value-conscious operators have rated as almost equal the price of the game and the distributor's parts department. In fact, out of more than 900 votes cast on this topic, the difference was only one vote.

The manufacturers that a particular distributor represents was also an important consideration, but it was not as high as the top three—a good repair service, the price, and a dependable parts department.

Mr. Average says he is indifferent to sales personnel, the location of the distributor, and the distributor's word on what to buy and what to avoid.

And Mr. Average doesn't seem to care at all about how the games look on the distributor's showroom floor or what are the distributor's financing terms.

FAVORITE MANUFACTURERS

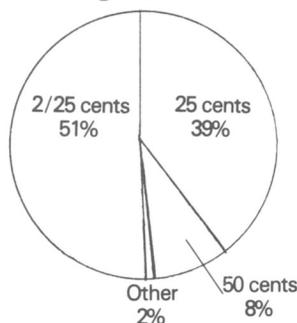
His favorite manufacturers are Seeburg for phonographs, Bally for pinballs, Atari for video games, Midway for non-video arcade games, Valley for pool tables, Tournament Soccer for foosball tables, Williams for shuffle alleys, and Gremlin for wall games.

Play Meter Poll Results

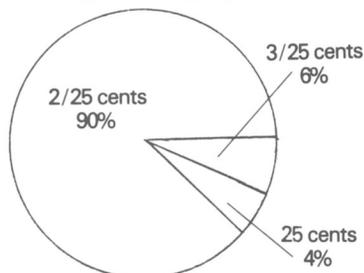
	% Total Equip.	Avg. No. Pieces	Weekly Gross	New Purchases
Pinball	33%	66	\$44	13
Phonographs	25%	50	\$46	5
Arcade Pieces	15%	30	\$44	12
Pool	12%	24	\$41	*
Foosball	5%	10	\$39	5
Wall Games	2%	4	\$33	1
Shuffleboards	2%	4	\$29	1
Air Hockey	1%	2	*	*
Others	5%	10	*	*

*Not computed

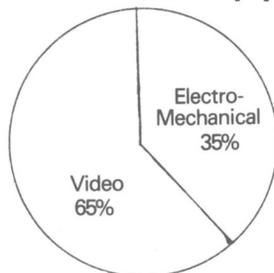
Pricing All Games



Pricing Phonographs



Breakdown of Arcade Equipment



PREFERRED MANUFACTURERS

Wall Games	
Gremlin	89%
All Others	11%

Shuffle Alleys	
Williams	74%
Chicago Coin	20%
All Others	6%

Phonographs	
Seeburg	38%
Rock-Ola	29%
Rowe-Ami	28%
All Others	5%

Pinball	
Bally	53%
Gottlieb	23%
Williams	22%
All Others	2%

Video Games	
Atari	59%
Midway	31%
All Others	10%

Non-Video Arcade	
Midway	56%
Chicago Coin	25%
All Others	19%

Pool Tables	
Valley	57%
U.S. Billiards	10%
U.B.I.	8%
Irving Kaye	7%
Dynamo	5%
American	4%
Fischer	3%
All Others	6%

Foosball Tables	
Tournament Soccer	31%
Dynamo	27%
Deutsche Meister	13%
Mirco	9%
Garlando	7%
Rene Pierre	7%
Irving Kaye	3%
All Others	3%

Montreal's squeaky-clean image

PINBALL

3-Ball v.s. 5-Ball

5-Ball
59%

3-Ball
41%

NEW PHONOGRAPH PURCHASES

Bought More
60%

Bought Same
6%

Bought Less
34%

NEW GAME PURCHASES

Bought More
69%

Bought Same
4%

Bought Less
27%

ELECTROMECHANICAL VERSUS SOLID STATE

Preference For Earnings

Solid State
65%

Electro-Mechanical
35%

Preference For Service

Electro-Mechanical
54%

Solid State
46%

The Association of Family Entertainment Centres, which groups ten of Montreal's largest companies specializing in coin-operated amusement machines, has been granted letters of patent by the Department of Consumer and Corporate Affairs in Ottawa. And as its first public action, the AFEC will engage in self-policing to insure that its member-centers—and, if possible, the industry as a whole—observe wholesome standards of operation.

Gerard Blanchette, chairman of the board of the association, said that while association members now represent roughly one-seventh of all Montreal amusement center operators, they, in fact, control 58 centers and some 3,325 machines—roughly 20 percent of the overall amusement machine business in Montreal.

"With a growing number of amusement centers now opening in Montreal, we feel it is the duty of the industry itself to guard against fly-by-night activities which might be harmful to the community and which would reflect on all of us," Blanchette declared.

Various Montreal newspapers have carried major articles in recent months about the resurgence of coin-operated amusement machines. The Montreal Star, for example, carried a full-page feature in February which headlined the "squeaky-clean image" of the family entertainment centers.

"They are clean, well-lit, intolerant of loiterers," added The Star.

La Presse, in a similar full-page feature last year, proclaimed: "For those over 30 years of age, the invasion recalls good old memories."

Also, the Ottawa grandfather of nine wrote The Gazette to say that amusement centers are "an asset to the community and by far the safest place for teenagers to be, off the streets and having clean fun with their friends. And their parents know where they are."

"Today's pinball is a highly engineered piece of equipment that helps youth coordinate their reflexes, relieves their tension and boredom, and keeps their minds off ways to get into trouble," wrote the man.

Le Journal de Montreal, for its part, reported that the amusement machines are "increasingly rallying to their cause the passionate love of

numerous recruits."

Harvey Fitleberg, president of the Association of Family Entertainment Centres, said its members together employ some 225 persons, including a sizeable number of pensioners. The total annual payroll amounts to almost \$1.7 million.

In various taxes, the Association's members pay nearly \$5 million a year to the three levels of government. The federal government collects duties on the machines—the machines held by association members are valued at \$4 million—as well as 12 percent sales tax and corporate income tax for a total of \$1.9 million. The Quebec take from association members is roughly \$658,400, consisting of the eight percent sales tax and \$255,600 in corporate income tax. The municipal share totals \$2,235,400, representing permits and business and water taxes.

Each amusement center whose owner is a member of the association displays a decal which acknowledges the association's "responsibility to the public."

Among those ethical standards adopted by the association, each member pledges to: conduct himself in accordance with the public interest; support efforts designed to enhance the contribution of the industry; be guided in his activities by the generally accepted standards of good taste and fair dealing; denounce any activity within the industry which tends to denigrate amusement centers as a whole; take an active interest in the civic, social and moral welfare of the community; maintain clean, well-illuminated premises; engage only mature, qualified employees of good reputation; insure his equipment is in good operating condition; correct promptly any justifiable complaint, whether it involve staff or equipment; adhere faithfully to provisions of the Association's Code of Ethics; and cooperate with fellow-members in upholding and enforcing the code.

Members of the Association are directly involved in a number of other businesses, including real estate, amusement rides, electronics, retailing, restaurants, etc.

Directors of the Association, in addition to Blanchette and Fitleberg, are Jack Lerner, Louis Zuckerman, and Marvin Tanner.

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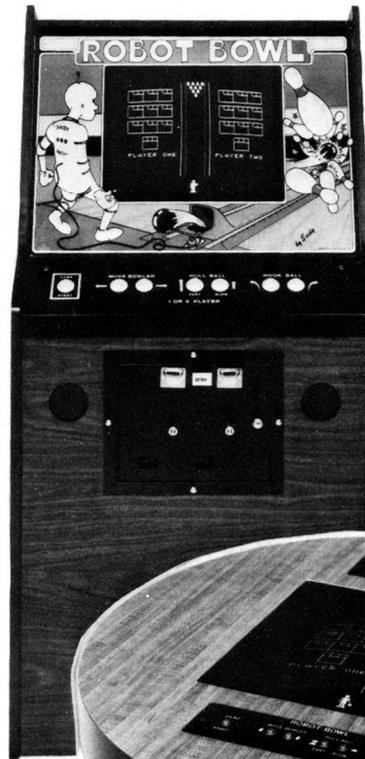
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Captain Fantastic, Sea Wolf top poll

Play Meter has determined that Bally's Captain Fantastic was the top earning pinball game for operators over the past twelve months, and Midway's Sea Wolf was the top earner among the video/arcade/novelty games.

Play Meter's evaluations come after an extensive survey (see related story) which, among other things, asked operators to list according to earnings their top three pinball games and their top three video/arcade/novelty pieces.

The final tabulations also provided *Play Meter* with its first opportunity to evaluate the ratings of its fearless pinball critic, Roger C. Sharpe, who has been rating pinball games for *Play Meter* since July, 1976. And the returns indicate he did well.

His rating system awards ##### for an excellent game, ### for a good game, ## for an average game, and # for a fair game.

Only two of the top ten games were not reviewed by the *Play Meter* critic, Bally's Wizard and Williams' Space Mission/Space Odyssey; and that was because those two games made their debut before Roger started rating games for *Play Meter's* readers.

To date, he has given an average rating (##) to 22 of the 48 games he has reviewed, and only one of those games made it to the top ten. The rest of the top earning games were also top-rated games.

It should be noted that the one average-rated game which made it to the top ten was Williams' Aztec. When Roger Sharpe gave the game its ##½ rating, he wrote that he subtracted a ½-point because he didn't like the artwork. So much for Roger Sharpe, art critic.

A complete list of Roger's ratings is as follows (games listed as unrated predated Roger's column with *Play Meter*): Captain Fantastic, #####; Night Rider, ###¼; Evel Knievel, #####; Space Mission/Space Odyssey, unrated; Aztec, ##½; Royal Flush/Card Whiz, ###; Grand Prix, ###½; Freedom, ###¼; Wizard, unrated; Jacks Open, #####; Target Alpha/Solar City, #####; Surf Champ/Surfer, ###½; Bow and Arrow, unrated; Old Chicago, ##½; Aladdin's Castle, ###¼; Blue Chip, ##½; Volley, unrated; Ship Ahoy/Buccaneer, ##½; The Atarians, ##; and Gold Strike/El Dorado, unrated.

Top pin games

1. Captain Fantastic (Bally)
2. Night Rider (Bally)
3. Evel Knievel (Bally)
4. Space Mission/Space Odyssey (Williams)
5. Aztec (Williams)
6. Royal Flush/Card Whiz (Gottlieb)
7. Grand Prix (Williams)
8. Freedom (Bally)
9. Wizard (Bally)
10. Jacks Open (Gottlieb)
11. Target Alpha/Solar City (Gottlieb)
12. Surf Champ/Surfer (Gottlieb)
13. Bow and Arrow (Bally)
14. Old Chicago (Bally)
15. Aladdin's Castle (Bally)
16. Blue Chip (Williams)
17. Volley (Gottlieb)
18. Ship Ahoy/Buccaneer (Gottlieb)
19. (tie) The Atarians (Atari)
Gold Strike/El Dorado (Gottlieb)

Others mentioned (in alphabetical order by manufacturer):

- Allied—Thunderbolt
Bally—Hokus Pokus, Flip Flop, Flicker, Hang Glider
Chicago Coin—Cinema/Hollywood, Jukebox
Gottlieb—Big Hit, Jungle Queen/Jungle Princess, Bronco Mustang, Spirit of '76, Soccer, Pro Pool, Fast Draw, Pioneer
Playmatic—Speakeasy, Fiesta, Apache
Segasa—Prospector, Super Straight, Cannes, Monaco
Stern—Rawhide/Stampede
Williams—Liberty Bell, Big Deal, Little Chief, Satin Doll, Lucky Hand

Top arcade games

1. Sea Wolf (Midway)
2. Sprint-2 (Atari)
3. Breakout (Atari)
4. Le Mans (Atari)
5. Gunfight (Midway)
6. Night Driver (Atari)
7. Death Race (Exidy)
8. Tornado Baseball (Midway)
9. 280ZZZ—AP (Midway)
10. (tie) Blockade (Gremlin)
Indy 4 (Atari)
12. F-1 (Namco)
13. Stunt Cycle (Atari)
14. Boot Hill (Midway)
15. Tank II (Atari)
16. Daytona 500 (Allied Leisure)
17. Shooting Trainer (Nintendo)
18. Road Runner (Midway)
19. Hit Me (Ramtek)
20. (tie) Hustle (Gremlin)
Flying Fortress (Electra Games)
Bazooka Gun (P.S.E.)
Junk Yard (American)

Others mentioned (in alphabetical order by manufacturer):

- Allied Leisure—F-114
Atari—Sprint 8, Steeple Chase, Triple Hunt, Drag Race, Dominos
Chicago Coin—Demolition Derby, Trap Shoot
Exidy—Car Polo
Gremlin—CoMotion, Play Ball
Meadows—Bonkers, Bombs Away, Flim Flam
Midway—Checkmate, Maze
Mirco—21
Ramtek—Barricade, Trivia Quiz
Sega—Plinker's Canyon
U.S. Billiards—Video Pool

Editor's Note: Critics of the critic take heed. Though "Critic's Corner" judges the games according to their play appeal, there seems to be a close relation between the ratings and the game's earnings potential. *Play Meter's* own rating of its critic's first full-year performance is ###½. There's room for improvement, Roger, but over all a fine effort. Be well and prosper.

Transition Show

The coin industry's once-a-year showcase is here. But instead of the usual preview—with references to this being "the biggest show ever" (which it is) and of this being the most exciting show yet (which it probably will be)—what should distinguish the 1977 show from all the previous shows is that it will reflect more than ever before an industry in transition.

The 1977 AMOA show (which in years to come may become known as the "Transition Show") should establish, finally, that solid state not only has a place in the coin-op industry but that it might well be its future.

As proof, it seems that almost everyone is coming out with solid state equipment this time around. Jukeboxes have been solid state for some time, and video equipment is, of course, on the increase. *Play Meter's* survey (elsewhere in this issue) shows that in the average American route operation 65 percent of all the arcade pieces are solid state video games.

And now even pinball, the old electro-mechanical stand-by, seems to have gone the way of the others. All major American manufacturers will be displaying solid state games at this year's show. For Bally and Atari, that's nothing new. But Gottlieb, Williams, and Stern will also be on hand with solid state pinball games. And the word is some foreign manufacturers might surprise a few people with some solid state entries of their own. Intrigue is in the air.

What to look for?

Bally won't be content with displaying its latest solid state pinball game, *Eight Ball*. Look for *Bigfoot* of NBC-TV fame, to make an appearance at the show. *Bigfoot* is presently being billed as the world's largest pinball and may be Bally's next effort.

Gottlieb's historic solid state effort will be *Cleopatra*, a four-player game. It's historic for two reasons. It's Gottlieb's first solid state game, of course; but it's also Gottlieb's first appearance at the AMOA show.

Williams also will unveil its first solid state pinball, and in addition will be featuring after a long wait another arcade piece, this one a



video game called *Road Champion*.

Stern will re-introduce its four-player pinball game, *Pinball*, this time in a solid state configuration.

And Atari has come out with its best effort yet in the pinball market. Atari's four-player game, *Airborne Avenger*, should be attracting more than its share of attention at this year's show. We also understand a real life magic show will be featured in the expanded Atari booth this year.

As far as phonographs, Rowe-AMI, the solid state latecomer, seems to have added an interesting twist of its own. Besides an entirely new cabinet design, Rowe's box comes equipped with a unique solid state popularity meter that gives an accurate measure of record selection. It enables the operator to measure accurately his overplay. The digital readout gives the operator an accurate readout of how many times each record has been selected. A simple touch of the button does it.

And look for NSM's latest, a jukebox which will be controlled by a central microprocessor. Wurlitzer will have its usual variety of phonos including a ten-button solid state 100-selection phono, and a unique compact juke that plays cassette tapes.

In arcade equipment, Midway will be showing its *Laguna Racer* and two other new games which are sure to delight the convention-goer. *Laguna Racer*, we understand, is an improved version of Midway's earlier success, *Wheels*. Meadows will be displaying its new upright bowling game; and take a look-see at Exidy's latest product, *Super Death Chase*, an obvious sequel to the notorious *Death Race*.

Mirco will unveil its *Formula M Vroom* which is believed to be the first sitdown video driving cocktail game. Allied Leisure will be showing its new non-video electro-mechanical sitdown projection target game, which is an updated version of its former winner, *Rapid Fire*. Other things to be on the lookout for include Cinematronics' *Space Wars* game and Elcon Industries' *Magic Trolley* (an arcade on wheels), and a new electro-mechanical arcade piece by Americoin, makers of last year's success *Junkyard*.

And U.S. Billiards will be there with a new two-player video game called Space Battle. U.S. Billiards will also be introducing Silver Falls, a hybrid arcade piece that is a non-video penny falls-type game. In addition, U.S. Billiards will also preview a new lock cash box at the show.

It's not enough to say that this year's show will be the biggest ever. By comparison, last year's "biggest ever" show had a total square footage of 53,781. This year that figure is 78,635. Three large rooms have been reserved for the exhibition—the East Room and the West Room on the lower level and the Continental Room, which is one level up from the West Room by escalator. The Continental Room will be the scene of special activity including AMOA service booths for mechanic training, consultation on tournaments, arcades, management, plus scheduled audio-visual presentations on the industry. And there will be a registration room in the North Room of the Conrad Hilton Hotel.

There will be two entrances to the exposition, one into the East Room on the lower level and another into the Continental Room on the second (or lobby) level.

There will be a ladies luncheon the first day of the show in the Normandie Lounge. Mrs. Irene Hughes, internationally-known psychic, will address the luncheon. This most unusual lady has put her psychic talents to wide use by helping police solve a great number of crimes, including baffling murder cases. Her predictions of well-known major events have been amazingly accurate.

The opening days of the convention will also feature an industry seminar. Notre Dame associate dean of graduate study, Dr. John Malone, has been engaged by the exposition seminar committee to address this year's seminar. His topic will be "Salesmanship: The Road to New Business Development."

Hospitality suites will be open Friday evening, and the exhibit hours will run from 9 a.m. to 3 p.m.

The second day of the show will feature a general membership meeting at 11:30 a.m. Hospitality suites will again be open in the evening and the exhibit hours will run from 10 a.m. to 6 p.m.

The final day of the show will feature a gala banquet and a stage show (see related story). Exhibit hours will be from 10 a.m. to 4 p.m.

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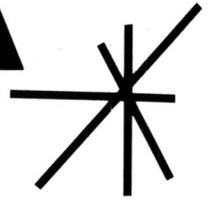
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SUMMARY

WHAT:
1977 AMOA International Exposition and Trade Show

WHERE:
East, West and Continental Rooms, Conrad Hilton Hotel, Chicago, Illinois

WHEN:
Friday, Saturday, Sunday, October 28-29-30, 1977

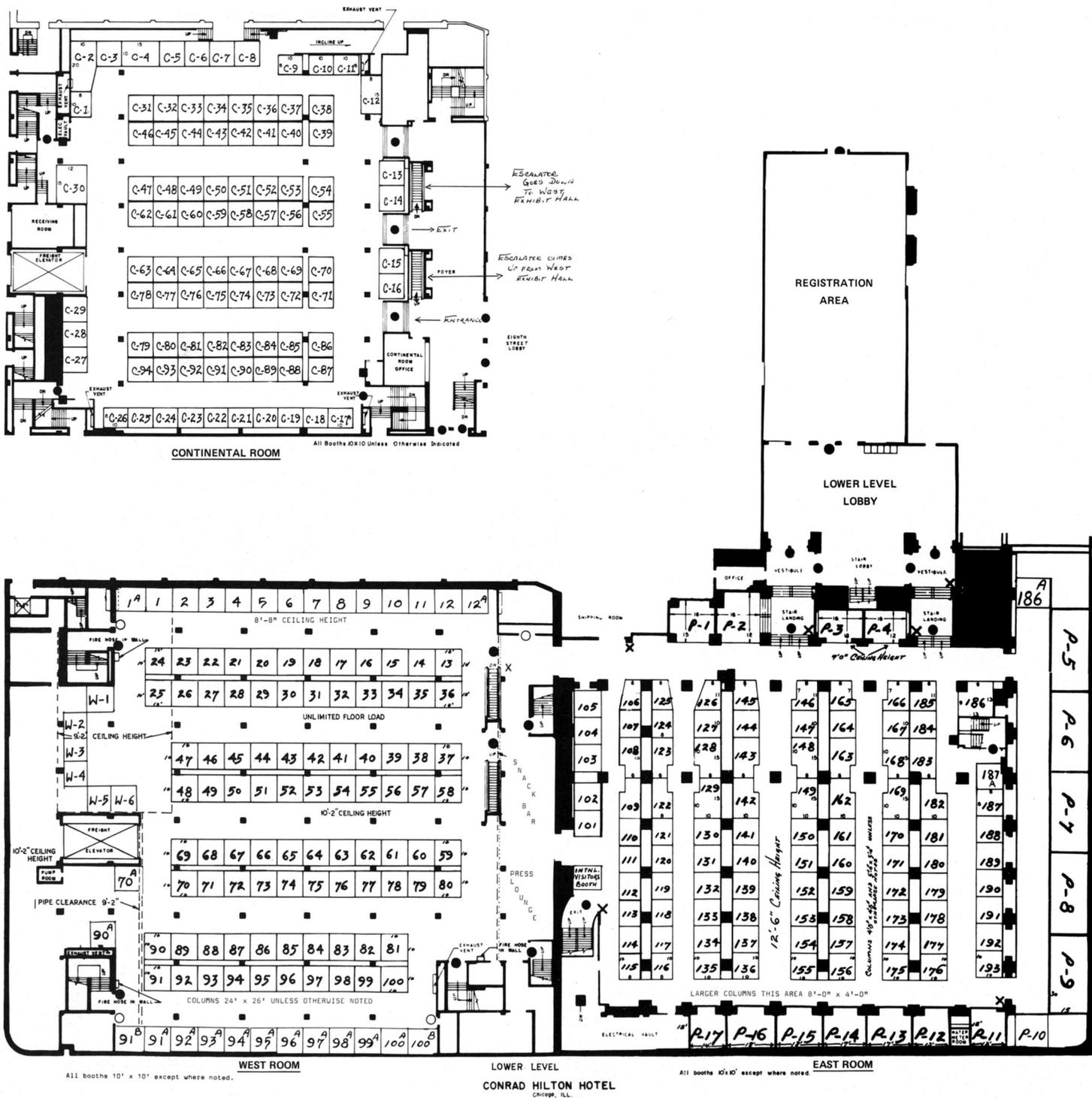
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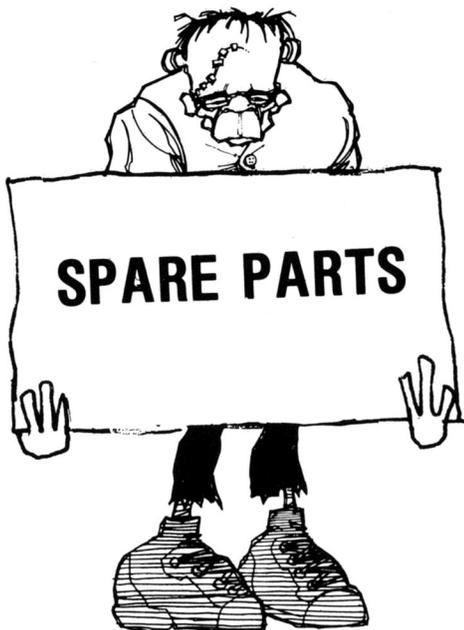
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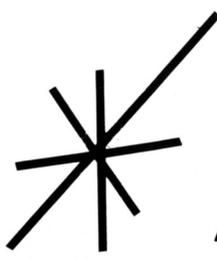


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AMOA Stage Show: A star-studded lineup



From top, Frankie Avalon, Jeanne Napoli, Nick Nixon, and Boots Randolph.

This year's AMOA stage show, October 30 at the Conrad Hilton Hotel in Chicago, has a sprinkling of diversified talent which runs the gamut of music entertainment. Boots Randolph, Dave and Sugar, Frankie Avalon, and the Sunshine Express are all part of the big show that is set for the closing night of this year's exposition.

The country music trio, Dave and Sugar, has hit upon a winning combination, blending tight vocal harmonies with a dynamic stage presence. Whether it is doing a Hank Williams standard, an Elvis Presley favorite, or an Olivia-Newton John tune, the trio is always in perfect harmony.

Although Dave and Sugar have a sound that could reach the cross-over market, the trio seems content with its country label. "You've got to have your roots somewhere, and ours are in country music," explains Rowland.

The trio's hits include "Queen of the Silver Dollar," "The Door is Always Open," "I'm Gonna Love You," and (its latest release) "Don't Throw It All Away."

Boots Randolph, otherwise known as Mr. Sax, will also be performing at the AMOA exposition banquet stage show. Boots, who is perhaps best known for his hit "Yakety Sax," was at last year's show and really ignited the crowd with his performance.

The Teenage Idol, only slightly grown up, will also be performing at this year's show. Frankie Avalon is an entertainer whose career spans all phases of the entertainment business—motion pictures, television, records, concerts, stage, and nightclubs. Currently, he is one of the busiest nightclub performers in the country. He has played in the nation's finest supper clubs and has headlined top Las Vegas Hotel mainrooms.

He has made more than thirty motion pictures and is perhaps best known for his beach party pictures which include "Beach Party," "Muscle Beach Party," "Beach Blanket Bingo," "How To Stuff A Wild Bikini," and others.

Also performing will be the Sunshine Express, a group of nine young entertainers who will be doing pop, country, and soul music from the forties and fifties.

The Sunshine Express is one of the hottest groups in show business, and there were many requests for a group such as them to perform at the AMOA stage show.

Also featured at the AMOA show will be Del Reeves, an actor, country music singer and songwriter, impressionist, and television personality. Though he is best known as a songwriter, he has recorded some hits himself and has earned himself a permanent spot on the Grand Ole Opry.

Del's back-up band, The Good Time Charlies, are now being heralded as superb entertainers in their own right.

Jeanne Napoli, an international singer, has also been engaged for the show. Currently she has a hit record in French on the London label entitled "Est Toujours Temps Pour Partir," which is the French version of "Never Can Say Good-Bye."

She is also recording in Tagalog (the Philippine language) for the Philippines and is presently doing an album for Vigor Records here in the United States.

Another entertainer who will be on hand will be Ray Griff, who got his big break when Johnny Horton recorded his song, "Mr. Moonlight." Ray's hits include "You Ring My Bell," "Your Lily White Hands," "Darlin'," "Morning After Baby Let Me Down," "It Rains Just the Same in Missouri," and his latest "If I Let Her Come In."

Frankie Randall, a jazz pianist from an early age, has recorded seven albums and countless singles—among them "Bewitched," "Spanish Flea," "Hello Vegas," "I Can't Believe It's Over," and "Loving You."

He has starred in cabarets and is presently working on a musical television series.

And Nick Nixon, a former optician, started his professional career in music when a singer friend of his invited him up to the stage to perform "Swinging Doors."

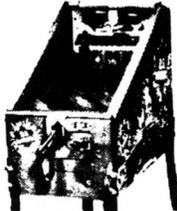
While still an optician, he formed his own band, The Country Souls Band, and followed with a string of singles which include "I'm Too Used to Loving You," "She's Just an Old Love Turned Memory," "Neon Lights," "Rocking In Rosalee's Boat," and his current song,

"Love Songs and Romance Magazines." All those songs are on his first album.

The master of ceremonies will be Jerri Cox who has emceed the show before. Jerri is more than an emcee, she's a comedienne, vocalist, instrumentalist.



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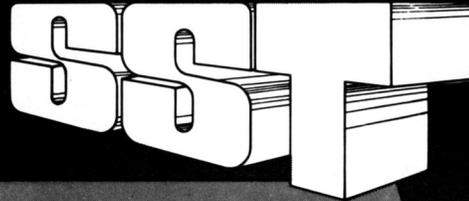


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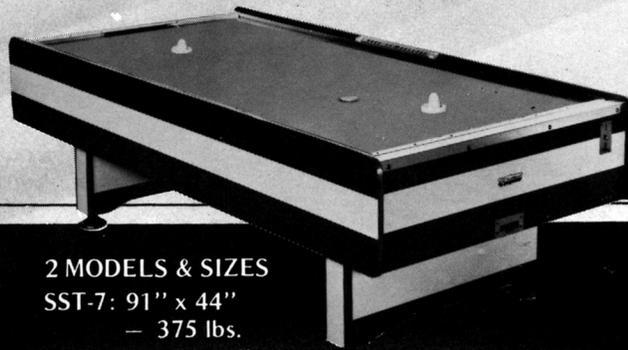
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Ten Tips

1. Go to the Exposition with the intent of learning as much as you possibly can, especially about new equipment. Attend educational sessions such as the AMOA Seminar. Visit AMOA service booths on the exhibit floor. Keep an open mind.

2. If possible, attend the Exposition with someone from your own company. Then you will be able to discuss, on the spot, the merits of the products you see. Or you may wish, at least some of the time, to split up and each concentrate on different parts of the show and then compare notes later.

3. Use your AMOA Exposition Program and Directory of exhibitors complete with floor plans. Then you can check off names of exhibitors you may have visited or may wish to visit again. Make sure to visit every exhibitor. The one you miss might be the one who could do you the most good.

4. Ask questions. Be inquisitive. Exhibitors cannot always display everything they have, nor can they publish all of their technical information and know-how. So, ask questions.

5. Discuss your particular problems with exhibitors. In this show most exhibitors will have technical people on hand to help you. Read the exhibitors' literature. Collect what you think will be helpful and take it home with you.

6. Get in the habit of making notes. Amidst such a large display of coin-operated equipment you will find it impossible to remember everything. So carry a notebook in which you can jot down names, products, manufacturers, ideas—whatever might be helpful. Don't trust anything to memory.

7. Keep on the move. The AMOA Exposition is a wonderful opportunity to talk shop with others in the coin machine business. Sometimes informal conversations can yield a gold mine of valuable information.

8. Meet new people. Introduce yourself. Your badge gives you the right to approach new people, most

of whom will be glad to meet you. Eat with someone different at every meal. Circulate at parties and receptions. The member you haven't spoken to may help you the most.

9. Ask for help. If you don't know who can aid you with a particular problem, consult one of the AMOA officers or directors. They will usually know who is most qualified or experienced to help you. Or consult members of the trade press who are very knowledgeable and will be glad to help you. If you are from another country, you can get help from AMOA's International Visitors Booth.

10. Finally, to get the most out of the show, work it systematically. Spend as much time on the exhibit floors as possible. Check the floor plan from official directory, the trade magazines or the enlarged floor plans posted throughout the show. Work the show carefully, thoroughly. The AMOA Exposition is a very special, high quality show. It only happens once a year. Get the most out of it.

—Fred Granger, executive vice president, AMOA

CALENDAR

October 28-30

Amusement and Music Operators Association, annual convention and trade show, Conrad Hilton Hotel, Chicago, Illinois.

November 19-21

International Association of Amusement Parks and Attractions Exposition, Rivergate, New Orleans, Louisiana.

January 13-15

The Music Operators of Minnesota, annual meeting and trade show.

January 20-21

Oregon Amusement and Music Operators Association, annual convention, The Embarcadero, Newport, Oregon.

January 24-26

Amusement Trades Exhibition (A.T.E.), Alexandra Palace, North London, England.

March 3-4

A.M.O.A. regional seminar, O'Hare Hilton, O'Hare Airport, Chicago, Illinois.

March 31-April 1

Music Operators of Michigan, fourth annual convention, Michigan Inn, Southfield, Michigan.

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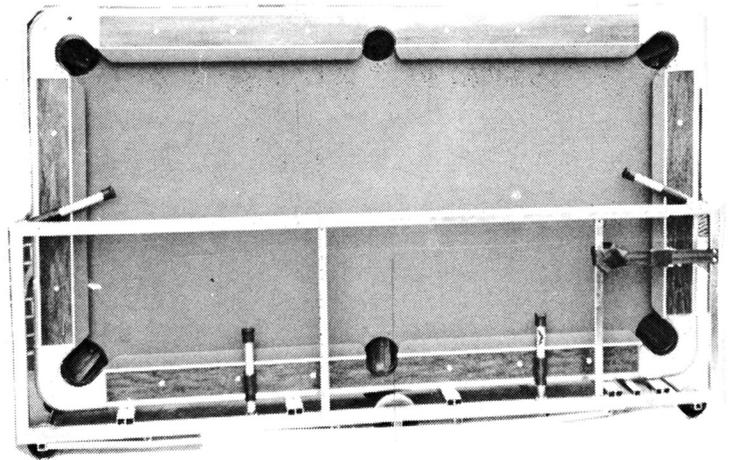
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By Gene Beley

A better peopletrap

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Aside from the Disney-like attractions, the success formula may be that Atari leaves the cooking to professional restaurant people and sticks to the computer animated characters and games. *Play Meter's* taste test can attest to good food as well as outstanding games and decor.

There have been rumors that some restaurants across the country have been offended by Atari's entering the restaurant business and ordered amusement operators to remove Atari games from the restaurants in question. "They quickly learned that Atari games make money, though," chuckled one distributor in Los Angeles, indicating the boycott was short-lived.

The experimental restaurant entertainment center, which opened May 16, combines pizza with pizzaz. Computer animated characters surround the walls, just below the ceiling area, and are on a time clock. Periodically in this dining area, the star of the show, Chuck E. Cheese, MC, opens the show and introduces his show biz pals. Crusty the cat, Jasper T. Jowls, the country hillbilly dog, and The Warblettes, provide an old-fashioned Saturday matinee, vaudeville type show.

Although it may seem dull stuff by Disney standards, the pioneering effort is laudable and appreciated by the Sesame Street set.

"I think it is an expensive place to go for dinner," commented Phyllis Greenlee, a mother from Cuperinto, but she didn't mean the food was expensive.

"The food was good and not overpriced," she added. "Once you bring a kid here, he just wants to do everything."

Everything includes more than 30 coin-operated electronic games in five different game rooms. The restaurant "primes the pump" by giving each customer a special token that activates a game. The number of tokens received depends on the price of the purchase, or

special promotions.

Atari has made a major breakthrough by obtaining special coin mechanisms from Germany to accomplish this advantage. Either their special tokens or quarters work in the machines. And the Pizza Time Theater tokens will not work in other operator's machines as they are too large to get in a coin throat.

Mrs. Greenlee said she would bring her family again to Pizza Time Theater "because it was different."

"Most pizza parlors are boring," she commented.

She particularly liked the animated show.

"A friend recommended it. This is really neat for younger kids."

Interestingly, Atari features other manufacturer's games as well as their own. Included are Midway's Sea Wolf and Boot Hill.

Upon entering, on the left is an oversized, fiberglass, hollow cheese replica for kids to crawl through the holes. On the right is a Puppy Pong, a small video Pong game with controls geared to the height of a three-year-old child. That game is on free play, but, with what Atari earned on Pong, that won't determine the financial success of Pizza Time Theater.

One glassed-off eating area had custom-built tables with Atari games imbedded. Landrum, who now heads Atari's Restaurant Operating Division, observes he is getting play on those games from many older people waiting for pizzas that might not otherwise play the games.

Game Room #2 featured Sprint 2, Night Driver, Indy 400, Boot Hill, Breakout and Dominos. Room #3 features Sea Wolf, Junkyard, Pool Shark, Drag Race, Starship, Quiz Show and Witchhunt. Room #4 has a Sega large-screen Wild Gunman and some air hockeys. Presently, Atari is operating the games and maintenance on the audiotronics.

Atari plans to build several more, then assemble a franchise package.

The animated audiotronics are built by Atari with consultant help from a small firm in Southern California called Fantasy Forest, Landrum said.

Will building a better peopletrap beat a path to Atari's new Chuck E. Cheese Pizza Time Theater in San Jose?

Early indications indicate Atari has another innovative winner in its mouse-mascot-themed entertainment center. And it's a true test, because the restaurant appears to be in a poor location, not fronting any major street. It is located in the Town and Country Shopping Center near Highway 17 and Stevens Creek Road in San Jose. This open type center is different because it purposely appeals to a high-level income, sophisticated market—a disadvantage perhaps for a new entertainment center and pizza restaurant, admits Gene Landrum, General Manager.

Despite such handicaps, people are beating a path to the door of Pizza Time Theater. Landrum said they are "25 percent ahead of our original financial projections."

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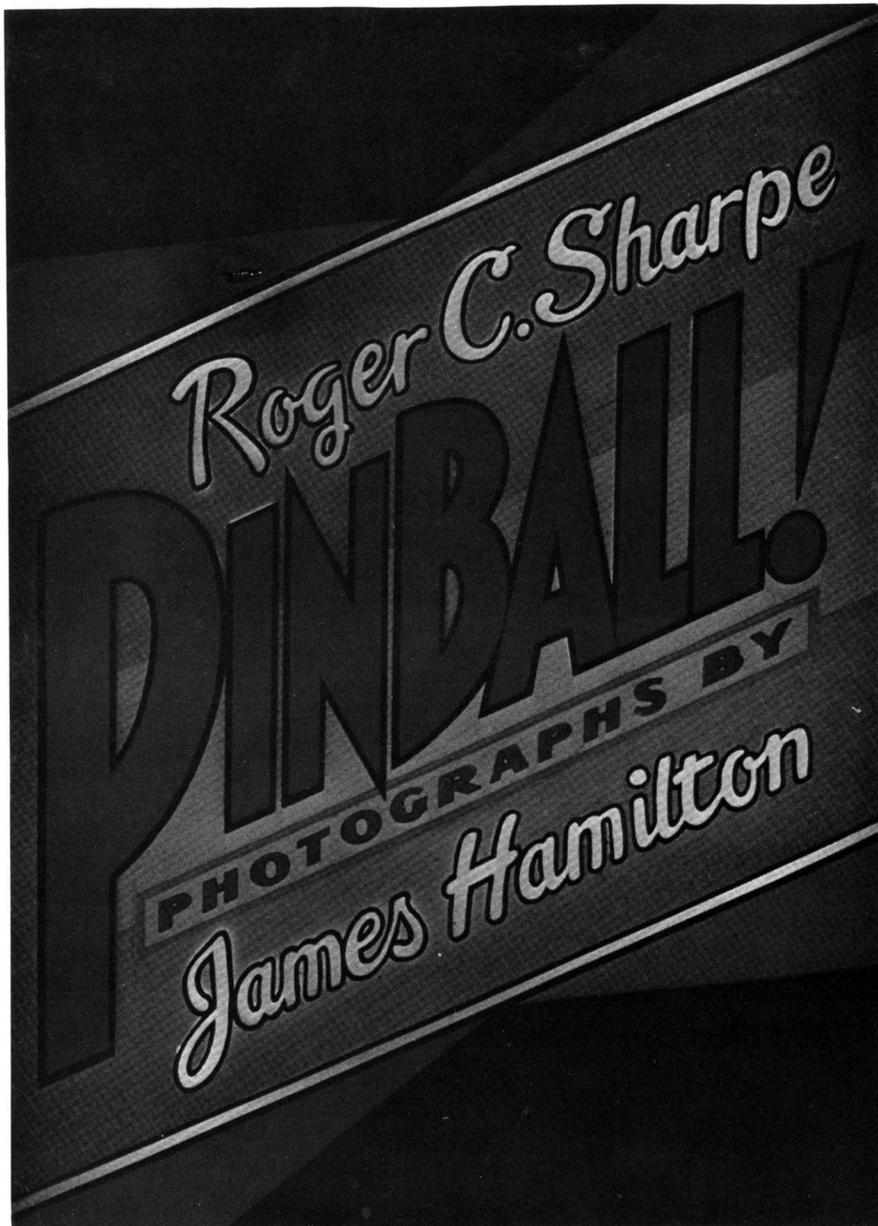
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Book review

There's a new book out, it's called *Pinball!* That's right, Roger C. Sharpe's long-awaited book has finally arrived.

The stunningly-colorful book from E.P. Dutton is a visual celebration of the phenomenon surrounding pinball. The photographs depict the ubiquitousness of the game—in lounges, in drug stores, in arcades, in tourist shops, in cafes, in liquor stores, in airports, in college hangouts, even in washaterias. It's pictured in all sorts of decorum, from chandeliers to graffiti-covered walls. It's even juxtaposed with flowers on a table. It's an altogether different view of a game which for too long has labored under the sleazy image that it's a game strictly for hoodlums.

The photography by James Ham-

ilton shows the game penetrating every segment of human life—with both young and old playing the game.

In an interview with *Play Meter* following the release of his book, Sharpe acknowledged that one of the shortcomings of the game of pinball is that, for some reason, adults have felt intimidated by the game (Operators, for the most part count 14-year-olds as the largest part of their clientele.)

Said Sharpe, "Look in many arcades. There are cartoon figures and child heroes depicted on the walls. In some, the decor is strictly schoolroom, with bulletin boards and the like. This in turn, intimidates many adults who want to play the game but feel put off by the surroundings. As a result, many

adults have come to think of pinball as being the hallowed grounds of kids, but that's not so. I hope my book raises the awareness level of this game. Adults will see that this is a game not just for kids, that there's something here for them too."

Roger Sharpe's text is written with the layman in mind. It outlines the history of the game, from bagatelle through the contributions of men like Harry Williams, David Gottlieb, Bill Gersh, Roy Parker, and others. There's some space devoted to the pinball court cases, but not much.

"I wanted *Pinball!* to be a document or a chronicle of the evolution of the game," said Sharpe. "I didn't want to get too heavy with this book. I wanted it to be understandable to someone outside the industry. For that reason, I didn't get too much into the court decisions surrounding the game."

The book does, however, give a good overview of the industry, with some explanation of the rationale behind some of the innovations in the industry. And, of course, there's a lot of those little-known facts which should enliven the text for those who are already familiar with the history of pinball.

There's also a section entitled "How to Play Pinball." In addition, *Pinball!* contains a glossary of terms for the layman, and a list of the games manufactured from its earliest days through the book's publication date in early 1977.

"It's a game that has become a part of our history," Sharpe told *Play Meter*. "It's an American success story. How many other industries can say they were started by energetic men in their late twenties? The car industry and maybe the movie industry, but that's about it. Pinball is like that. This is Americana."

For all of Sharpe's insistence that pinball is essentially American, there seems to be a preponderance of photographs of pinball in European countries. We asked him about that.

"Here in the United States we're more geared to pinball in arcades and lounges and coffeeshops," said Sharpe. "But in Europe it's more a part of their lifestyle. It's not a part of our lifestyle yet, but it will be. You see, pinball is a game Europeans have picked up on," continues Sharpe. "It's a European game that has come from the States."

Perhaps *Pinball!* will be able to show the American reading public the versatility of the game, it's wide acceptance and popularity. The book does show the game in a good light. There are pictures of parents

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enfolding their children who are playing the game. There are pictures of happy groups of people playing the game, and of solitary figures pounding away at the game.

For the operator it could well become a practical guide to different types of arcade motifs to try. By flipping through the book, an operator can become exposed to countless types of decorum for his games. And, surely the book is an ideal gift to give to someone in the industry or for someone in the industry to give to someone outside the industry.

It may sound brash, but the book has all the earmarks of becoming the *Roots* of the pinball industry. Possibly, it can provide the industry with an identification, a recognizability, a camaraderie. As Sharpe puts it, "It's reassurance that there's nothing wrong with the industry. Through the game's checkered past, it has persevered, and now it has become a part of our history."

For those who would like to see firsthand, they are invited to visit the Play Meter booth at the AMOA show in Chicago. Roger Sharpe will be on hand to discuss his book and any specific questions you may have about it.

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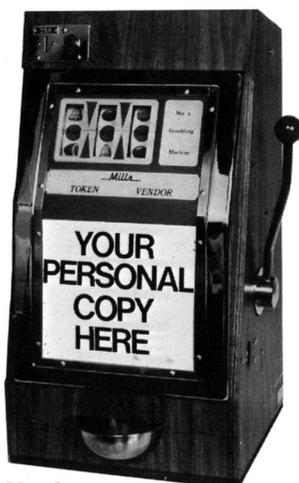
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TITLE, ARTIST, Label, Number, (Distributing Label)

OCT. 15	OCT. 8		WES. ON CHART
1	4	YOU LIGHT UP MY LIFE DEBBY BOONE Warner/Curb WBS 8446 (WB)	8
2	2	KEEP IT COMIN' LOVE KC & THE SUNSHINE BAND/ T.K. 1023	17
3	1	"STAR WARS" THEME/CANTINA BAND MECO/Millennium MN 604 (Casablanca)	12
4	5	NOBODY DOES IT BETTER CARLY SIMON/Elektra 45413	13
5	3	THAT'S ROCK 'N' ROLL SHAUN CASSIDY/Warner/Curb WBS 8423 (WB)	12
6	7	BOOGIE NIGHTS HEATWAVE/Epic 8 50370	12
7	6	BEST OF MY LOVE EMOTIONS/Columbia 3 10544	18
8	8	COLD AS ICE FOREIGNER/Atlantic 3410	13
9	9	I JUST WANT TO BE YOUR EVERYTHING ANDY GIBB/ RSO RS 872 (Polydor)	26
10	12	I FEEL LOVE DONNA SUMMER/Casablanca 884	11
11	10	WAY DOWN ELVIS PRESLEY/RCA PB 10998	16
12	13	THE KING IS GONE RONNIE McDOWELL/Scorpion SC 0543	6
13	15	BRICK HOUSE COMMODORES/Motown M 1425F	8
14	11	SWAYIN' TO THE MUSIC (SLOW DANCIN') JOHNNY RIVERS/Big Tree BT 16094 (Atlantic)	17
15	18	IT'S ECSTASY WHEN YOU LAY DOWN NEXT TO ME BARRY WHITE/20th Century 2350	7
16	14	DON'T STOP FLEETWOOD MAC/Warner Bros. WBS 8413	15
17	16	TELEPHONE LINE ELECTRIC LIGHT ORCHESTRA/Jet 1000 (UA)	18
18	24	DON'T IT MAKE MY BROWN EYES BLUE CRYSTAL GAYLE/ United Artists XW1016	12
19	20	SIGNED, SEALED, DELIVERED (I'M YOURS) PETER FRAMPTON/A&M 1972	8
20	21	JUNGLE LOVE STEVE MILLER BAND/Capitol P 4466	11
21	17	ON AND ON STEPHEN BISHOP/ABC 12260	17
22	23	CAT SCRATCH FEVER TED NUGENT/Epic 8 50425	12
23	19	DON'T WORRY BABY B. J. THOMAS/MCA 40735	14
24	31	BABY, WHAT A BIG SURPRISE CHICAGO/Columbia 3 10620	3
25	42	WE'RE ALL ALONE RITA COOLIDGE/A&M 1965	6
26	28	IT WAS ALMOST LIKE A SONG RONNIE MILSAP/ RCA PB 10976	13
27	32	JUST REMEMBER I LOVE YOU FIREFALL/Atlantic 3421	7
28	29	HEAVEN ON THE SEVENTH FLOOR PAUL NICHOLAS/ RSO RS 878 (Polydor)	9
29	30	SHE DID IT ERIC CARMEN/Arista 0266	8
30	25	(YOUR LOVE HAS LIFTED ME) HIGHER & HIGHER RITA COOLIDGE/A&M 1922	24
31	34	HELP IS ON THE WAY LITTLE RIVER BAND/Harvest P 4428 (Capitol)	12
32	33	I BELIEVE YOU DOROTHY MOORE/Malaco 1042 (T.K.)	12
33	36	DO YOU WANNA GET FUNKY WITH ME PETER BROWN/ Drive 6258 (T.K.)	7
34	39	DUSIC BRICK/Bang 734	7
35	35	I WOULDN'T WANT TO BE LIKE YOU ALAN PARSONS PROJECT/Arista 0260	10
36	22	FLOAT ON FLOATERS/ABC 12284	17
37	44	WE JUST DISAGREE DAVE MASON/Columbia 3 10575	7
38	26	HANDY MAN JAMES TAYLOR/Columbia 3 10557	18
39	27	STRAWBERRY LETTER #23 BROTHERS JOHNSON/ A&M 1949	15
40	38	EASY COMMODORES/Motown M 1418F	21
41	45	SURFIN' USA LEIF GARRETT/Atlantic 3423	8
42	43	LITTLE DARLIN' (I NEED YOU) THE DOOBIE BROTHERS/ Warner Bros. WBS 8408	12
43	37	DAYTIME FRIENDS KENNY ROGERS/United Artists XW1027	12
44	57	HOW DEEP IS YOUR LOVE BEE GEES/RSO 882 (Polydor)	3
45	50	DO YOUR DANCE (PART I) ROSE ROYCE/Whitfield WHL 8440 (WB)	4
46	53	THE LOVE THEME FROM "ONE ON ONE" (MY FAIR SHARE) SEALS & CROFTS/Warner Bros. WBS 8405	6
47	55	CHANGES IN LATITUDES, CHANGES IN ATTITUDES JIMMY BUFFETT/ABC 12305	4



48	60	DAYBREAK BARRY MANILOW/Arista 0273	3
49	54	I JUST WANT TO MAKE LOVE TO YOU FOGHAT/ Bearsville BSS 0319 (WB)	8
50	73	ISN'T IT TIME BABYS/Chrysalis CHS 2173	3
51	64	BLUE BAYOU LINDA RONSTADT/Asylum 45431	5
52	41	THE GREATEST LOVE OF ALL GEORGE BENSON/Arista 02511	13
53	56	DEVIL'S GUN C. J. & COMPANY/Westbound 55400 (Atlantic)	11
54	58	DOCTOR LOVE 1ST CHOICE/Gold Mind 4004 (Salsoul)	5
55	49	THEME FROM "STAR WARS"/CANTINA BAND LONDON SYMPHONY ORCHESTRA/20th Century 2345	14
56	48	UNDERCOVER ANGEL ALAN O'DAY/Pacific 001 (Atlantic)	26
57	47	DA DOO RON RON SHAUN CASSIDY/Warner/Curb WBS 8365 (WB)	23
58	69	IT'S SO EASY LINDA RONSTADT/Asylum E 45438	2
59	66	SEND IN THE CLOWNS JUDY COLLINS/Elektra 45076	4
60	63	A PLACE IN THE SUN PABLO CRUISE/A&M 1976	4
61	40	YOU AND ME ALICE COOPER/Warner Bros. WBS 8349	25
62	70	GONE TOO FAR ENGLAND DAN & JOHN FORD COLEY/ Big Tree BT 16102 (Atlantic)	3
63	72	(EVERY TIME I TURN AROUND) BACK IN LOVE AGAIN LTD/A&M 1974	5
64	71	COME SAIL AWAY STYX/A&M 1977	4
65	67	I GO CRAZY PAUL DAVIS/Bang 733	8
66	74	SHAKE IT WELL DRAMATICS/ABC 12299	3
67	81	BABY COME BACK PLAYER/RSO RS 879 (Polydor)	3
68	77	FAIR GAME CROSBY, STILLS & NASH/Atlantic 3432	3
69	79	THUNDER IN MY HEART LEO SAYER/Warner Bros. WBS 8465	2
70	80	YOUR SMILING FACE JAMES TAYLOR/Columbia 3 10602	2

CHARTMAKER OF THE WEEK

71	—	SWING TOWN STEVE MILLER Capitol P 4496	1
72	82	CALLING OCCUPANTS OF INTERPLANETARY CRAFT CARPENTERS/A&M 1978	2
73	83	GOIN' PLACES THE JACKSONS/Epic 8 50454	2
74	89	SENTIMENTAL LADY BOB WELCH/Capitol P 4479	2
75	76	LOVE GUN KISS/Casablanca 895	4
76	65	LITTLE QUEEN HEART /Portrait 6 70008	5
77	—	SERPENTINE FIRE EARTH, WIND & FIRE/Columbia 3 10625	1
78	—	SLIP SLIDIN' AWAY PAUL SIMON/Columbia 3 10630	1
79	88	STONE COLD SOBER CRAWLER/Epic 8 50442	2
80	84	SILVER LADY DAVID SOUL/Private Stock 163	6
81	85	TIME BOMB LAKE /Columbia 3 10614	3
82	86	GEORGIA RHYTHM ATLANTA RHYTHM SECTION/Polydor 14432	3
83	87	AVENGING ANNIE ROGER DALTRY/MCA 40800	2
84	—	DRAW THE LINE AEROSMITH/Columbia 3 10637	1
85	97	SHE'S NOT THERE SANTANA/Columbia 3 10616	2
86	90	BABY LOVE MOTHER'S FINEST/Epic 8 50407	4
87	—	HERE YOU COME AGAIN DOLLY PARTON/RCA 11123	1
88	—	HARD TIMES BOZ SCAGGS/Columbia 3 10606	1
89	93	YOU'RE MOVING OUT TODAY CAROLE BAYER SAGER/ Elektra 45422	2
90	94	NEEDLES & PINS SMOKEY/RSO 881 (Polydor)	3
91	91	YOU CAN'T TURN ME OFF (IN THE MIDDLE OF TURNING ME ON) HIGH INERGY/Gordy 7155 (Motown)	4
92	95	FROM GRACELAND TO THE PROMISED LAND MERLE HAGGARD/MCA 40804	2
93	52	SMOKE FROM A DISTANT FIRE SANFORD-TOWNSEND BAND/Warner Bros. WBS 8370	17
94	46	ANOTHER STAR STEVIE WONDER/Tamla T 54286f (Motown)	10
95	75	RED HOT ROBERT GORDON WITH LINK WRAY/ Private Stock 156	6
96	59	BARRACUDA HEART/Portrait 6 70004	21
97	92	GIVE A LITTLE BIT SUPERTRAMP/A&M 1938	21
98	96	WE NEVER DANCED TO A LOVE SONG MANHATTANS/ Columbia 3 10586	8
99	62	JUST A SONG BEFORE I GO CROSBY, STILLS & NASH/ Atlantic 3401	20
100	—	LADY OF MAGIC MAZE WITH FRANKIE BEVERLY/Capitol P 4456	1



Top Country Hits

Top Soul Hits

Now		Was		
1	4	HEAVEN'S JUST A SIN AWAY		KENDALLS/Ovation OV 1103
2	2	DAYTIME FRIENDS		KENNY ROGERS/United Artists XW1027
3	5	Y'ALL COME BACK SALOON		OAK RIDGE BOYS/ABC Dot DO 17710
4	1	I'VE ALREADY LOVED YOU IN MY MIND		CONWAY TWITTY/MCA 40754
5	6	EAST BOUND AND DOWN		JERRY REED/RCA PB 11056
6	7	I GOT THE HOSS		MEL TILLIS/MCA 40764
7	12	I'M JUST A COUNTRY BOY		DON WILLIAMS/ABC Dot DO 17717
8	11	WE CAN'T GO ON LIVING LIKE THIS		EDDIE RABBITT/Elektra 45418
9	8	WHY CAN'T HE BE YOU		LORETTA LYNN/MCA 40747
10	10	IT'S ALL IN THE GAME		TOM T. HALL/Mercury 55001
11	3	DON'T IT MAKE MY BROWN EYES BLUE		CRYSTAL GAYLE/United Artists XW1016
12	21	THE KING IS GONE		RONNIE MCDOWELL/Scorpion GRT 0543
13	17	SILVER MEDALS AND SWEET MEMORIES		STATLER BROTHERS/Mercury 55000
14	14	SHAME, SHAME ON ME		KENNY DALE/Captiol 4457
15	15	THE DANGER OF A STRANGER		STELLA PARTON/Elektra 45410
16	18	ONCE IN A LIFETIME THING		JOHN WESLEY RYLES/ABC Dot 17698
17	19	IF IT AIN'T LOVE BY NOW		JIM ED BROWN & HELEN CORNELIUS/RCA PB 11044
18	24	THE OLD MAN AND HIS HORN		GENE WATSON/Capitol 4458
19	23	TOO MUCH IS NOT ENOUGH		BILLIE JO SPEARS/United Artists XW1041
20	25	HOLD ME		BARBARA MANDRELL/ABC Dot DO 17716

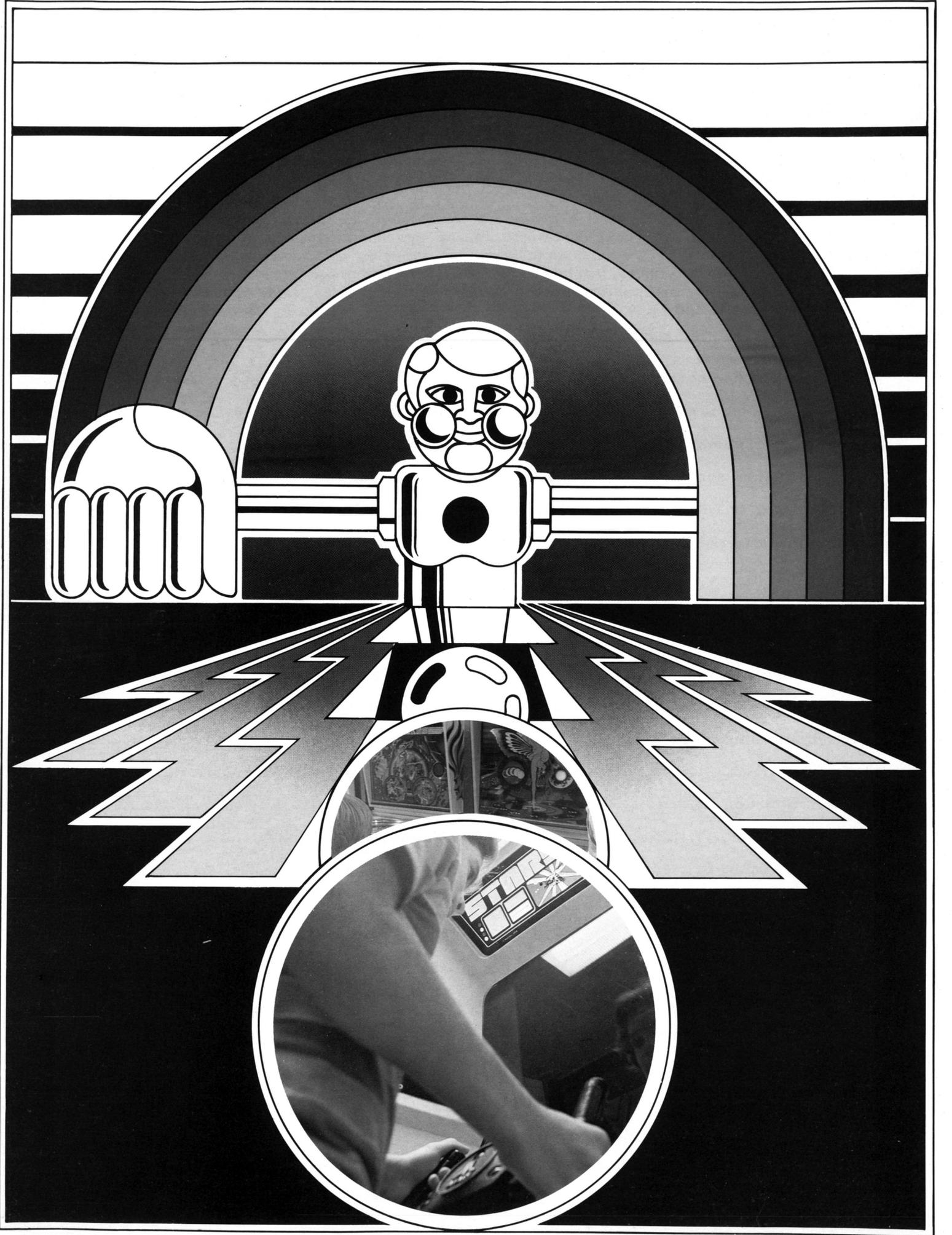
Now		Was		
1	1	IT'S ECSTASY WHEN YOU LAY DOWN NEXT TO ME		BARRY WHITE/20th Century TC 2350
2	2	BOOGIE NIGHTS		HEATWAVE/Epic 850370
3	4	KEEP IT COMIN' LOVE		KC & THE SUNSHINE BAND/T.K. 1023
4	12	BRICK HOUSE		COMMODORES/Motown M 1425F
5	10	DUSIC		BRICK/Bang 734
6	11	DO YOUR DANCE (PART I)		ROSE ROYCE/Whitfield WH1 8440
7	3	FLOAT ON		FLOATERS/ABC 12284
8	8	WE NEVER DANCED TO A LOVE SONG		MANHATTANS/Columbia 3 10486
9	7	WORK ON ME		O'JAYS/Phila. Intl. ZS8 3631
10	5	STRAWBERRY LETTER 23		BROTHERS JOHNSON/A&M 1949
11	14	DO YOU WANNA GET FUNKY WITH ME		PETER BROWN/Drive 6258
12	6	BEST OF MY LOVE		EMOTIONS/Columbia 3 10544
13	21	(EVERY TIME I TURN AROUND) BACK IN LOVE AGAIN		LTD/A&M 1974
14	16	DOCTOR LOVE		1ST CHOICE/Gold Mind 4004
15	9	THE GREATEST LOVE OF ALL		GEORGE BENSON/Arista 0251
16	13	EASY		COMMODORES/Motown M 1418F
17	17	I BELIEVE YOU		DOROTHY MOORE/Malaco 1042
18	24	SHAKE IT WELL		DRAMATICS/ABC 12299
19	19	JUST LET ME HOLD YOU FOR A NIGHT		DAVID RUFFIN/Motown M 1420F
20	15	I FEEL LOVE/CAN'T WE JUST SIT DOWN (AND TALK IT OVER)		DONNA SUMMER/Casablanca 884

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Gateway Convention Center
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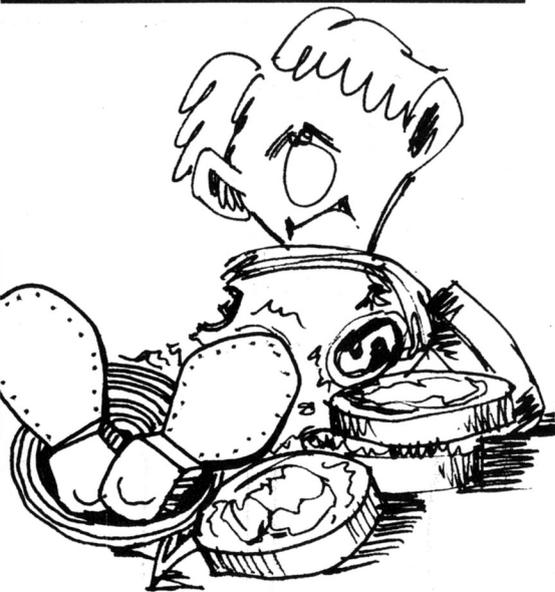
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When 50/50 won't do



By Ernest W. Fair

The lifeblood of any coin machine business is in the commission arrangements made with location owners. In many cases the chance for business survival can depend upon them. But how does the operator negotiate for better commission arrangements? Here are some suggestions from actual practice today:

Sell the deal as a partnership proposition. Profit has to be made by both parties to guarantee continued revenue from any machine. So talk this "partnership" every time; get the location owner to thinking in those terms.

Show him exactly what you can do for him with the better commission arrangement. Talk in specifics,

not generalities. Immediate service to eliminate downtime on a machine, is one appeal. Another is to assure him he'll be getting the latest equipment or the proven money-makers.

Tie in commission figures with the placement spot in his location that he gives you. In the number one spot, you can take a little less. If your units have to be placed in less desirable floor space, then your commission must be larger. That's an argument easy to put across to any location owner.

Have something extra to give him in return for a better commission. What this may be will depend upon his business. The use of a little imagination can develop something of this nature to fit any location.

It's a matter of "You do this for me, and I'll do that for you." It's just old fashioned horse trading, and that's something all of us like in our business contacts.

Make the commission arrangement a flexible one when the machine is brought in. Start off with the way he wants it. But tie better commission arrangements for yourself to increased revenue over the original, for the future. This is a more acceptable program to the average location owner. It beats attempting to sell a higher commission at the start.

Put the major emphasis on the dollar revenue he will receive. Keep this as the theme of your sales effort. With strong enough emphasis, it can make many individuals forget all about commission percentages.

Push the commission arrangement you desire as being only a trial arrangement for a month. If profit for him falls below his expectations, you can assure him that it will be lowered or the unit replaced by another.

Once this initial commission is established, it will be easier to maintain than if the deal has not been made. And if the machine has the potential you believe it has, he will not be apt to ask that the original commission be lowered.

Pick the right time for your presentation. The individual with a good business day is more apt to be receptive than where a bad one is present. The location owner in a pleasant frame of mind is in a better mood for your effort than the man who is not. No negotiation for that better commission arrangement is ever desirable unless you have everything going for you.

Do more "educational" work among location owners on your

own costs of doing business. Most of them have only the barest conception of your overhead costs. Nearly all consider them well below what they actually are. This is a subtle thing to be handled with finesse. But if you approach it right, it can put a lot of location owners on your side.

You should avoid being too "slick" in your approach. Keep your commission arrangements flexible. Otherwise, the location owner will find you following set patterns, and if this happens, it will be very difficult to negotiate a better arrangement. Like everyone else, location owners don't like to feel that someone is trying to "put something over" on him.

Hold down your eagerness to place your machines in his business. That invariably puts your own firm in a bad bargaining position. The program calling for a straight business deal that can be of mutual benefit is a lot easier to sell and do so on a better deal.

"Why should he give me a better commission?" That's a good question to ask yourself BEFORE a contact is made. When you then come up with answers from his viewpoint, you have excellent arguments to give that specific location owner for a better commission arrangement. It is advance preparation that will definitely pay off.

Try for a better commission each time you replace an old machine within any location. The individual knows the cost difference is great. In most cases he can see that your maintenance cost will be larger.

Keep in mind, also, that he definitely wants the replacement. If he is made to believe a larger commission determines whether or not the new machines go in, you have something going for you. It need not be expressed as a condition of replacement, only implied.

Your business calls for you to come up with promotions et.al. time to time. Use each of these occasions as the time to propose a better commission arrangement. The location owner sees each of these as additional benefit for himself. He is going to get more than before; so he'll be more amenable to this suggestion than he would earlier.

Negotiate each such effort as being the policy to be applied to all locations and not just his own. That removes the objection that he should grant you no better deal than you are getting from his competitor down the block.

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OCTOBER 1977 - OUR 5TH YEAR



The American contingent at the Wurlitzer distributor meeting checks out the latest phonograph from the German manufacturer.

Wurlitzer distributors meet

At the international Wurlitzer meeting October 3-4 at the Holiday Inn in Malaga, Spain, W.N. Herleman, president of Wurlitzer (who has been with Wurlitzer for 17 years), welcomed the truly international gathering.

He stated that Wurlitzer set a new sales record and commended everyone for their sales effort over the past year.

G. Seidel, chief engineer, said that a salesman should be familiar with the technical and competitive advantages of his equipment, and gave a brief rundown of the fundamental elements of the Wurlitzer phonograph.

He emphasized that the record storage system is based on the principal that dust obviously collects faster on records stored horizontally. Wurlitzer stores them vertically even though it requires a bit more space and more of a cost for the manufacturer.

He said that 15 to 20 years ago the main attraction of the jukebox itself was with the mechanism. Now, however, that fascination is gone and the appeal is for the phonograph's style and illumination. Wurlitzer is now marketing eight different models because of the different needs at different locations.

There is no such thing as a totally

electronic phonograph, he pointed out, since the record-playing mechanism is basically mechanical. The best place to go all-electronic is in the area of control and storage (credit system). This enables the new Wurlitzer to play selections in sequence of their selection rather than their order in the placement in the magazine.

He also stressed the importance of carrying space for quick repair. In years to come, he said, phonos of both solid state control as well as electro-mechanical will be available.

Klaus Telgheder had the honor of introducing Wurlitzer's latest innovation, a cassette tape playing juke.

The cassette player, he pointed out, is not to be misconstrued as a successor to the jukebox but rather each has its own place. The new Wurlitzer unit, he added, can also be operated in a coin-op version, though it can also replace sound systems and free-play-type locations.

The C-4 is a coin-op cassette box with a non-coin-operated selective device. Wurlitzer says it will replace a non-stop music installation for background music, though they reiterated that it is not in direct competition with the bigger jukebox market which is continuing to grow.

Parts catalog

The Great Amusement Emporium has completed its new 250-page catalog of parts and supplies for the coin machine industry.

The catalog, which can be obtained free of charge by calling 1-800-525-8078, contains parts and supplies for billiards, foosball, video equipment, jukeboxes, and pin games.

Simon, Lott win tourney

The team of Steve Simon and Johnny Lott captured first place in the prestigious doubles event in the \$25,000 Eastern States Foosball Championships which was held September 2 through 5 in Columbus, Ohio and sponsored jointly by Shaffer Distributing and Tournament Soccer.

For their efforts, they shared first place money in the open doubles bracket of \$4,000. Second place finishers in the competition were Jerry Knowles and Bob Thorud. With their prize money, Simon and Lott moved into second and third places respectively among the leading money winners in the pro foosball tour this year. Simon has won \$8,600 and Lott, \$6,850. They are both far behind the \$21,900 total of the leading money winner Doug Furry, who is the reigning Super Singles champ.

In the mixed doubles competition, it was the team of Dan Kaiser and Karin Gililand which shared the first place money of \$1,000. In the singles competition, Mike Bowers defeated Dan Kaiser to claim the first place money of \$1,000 in that event.

Other tournaments which were held as part of the four-day Eastern States Championships were the championship women's doubles, novice open doubles, novice mixed doubles, novice singles, novice women's doubles, women's singles, rookie competition, and a pro-am event.

Pinball schools

Empire Distributing Company will sponsor back-to-back full-day pinball service schools November 7 and 8 at the Midway Motor Lodge in Green Bay, Wisconsin.

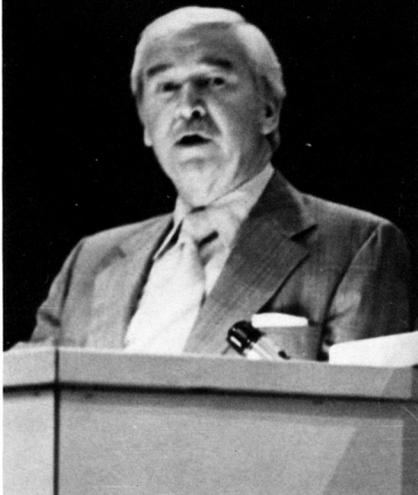
According to Bob Rondeau of Empire Distributing in Chicago, the two schools are being presented in this way so that operators will have an option on which day they can do without their servicemen.

Two instructors from Bally Manufacturing will be represented at the schools and will be assisted by Empire Distributing personnel. Those interested in registering for one of the full-day schools should call 414-468-5200.



Ed Shaffer (center) met recently with Matt Russ (left), who is the senior vice president of marketing for Rowe International, and Joe Barton, a former president and now a consultant for Rowe. Shaffer is a distributor of Rowe music and vending equipment in the Ohio, West Virginia, and Kentucky area.

Rowe meeting



Paul Huebsch, Rowe's general sales manager, addresses the gathering at the annual distributor's meeting.

At the Rowe annual distributors' meeting September 29 and 30 at the Sheraton National in Arlington, Virginia, Rowe introduced its newest phonograph, the R-82.

Merrill Krakauer, general manager of Rowe's Whippany, New York distributorship, delivered the welcoming message to those attending the meeting and set the tone for the meeting by announcing that Rowe fully intends "to re-establish its position as a dominant force in the marketplace."

He cited the fact that Rowe experienced an improved growth rate over the past twelve months and added that Rowe's latest phonograph, the R-82, is a 100 percent change in the evolution of the Rowe product line.

Krakauer noted that Rowe has invested more than \$2 million toward the goal of improving its product line with an eye toward strengthening its engineering department and its research and development department, which would make the Rowe line more reliable and, therefore, more competitive.

He pointed out the success of Rowe's unit for last year, R-81, which was the company's first solid state unit, and he added that this year's phonograph marks a substantial change in styling and adds some interesting new features.

He said that there is plenty of opportunity in today's market for

Rowe to increase its profits substantially not only because of the excellent new Rowe phonograph but also because of the uncertainty surrounding the games business. "The money," Krakauer said, "will start seeping back into the phono market."

Paul Huebsch, general sales manager for Rowe, pointed out many of the new additional features in the Rowe phono, for instance, the pin wheel popularity meter has been replaced by an entirely new solid state computer called Memo-rec. The digital readout lists in either ascending or descending order the number of times each record has been selected since the last reset.

He also noted that the R-82 has an auto-play unit which can be set to play a random selection after a pre-determined period of no-play. This, Hutch pointed out, should invite interest and stimulate more play in the jukebox. He noted that this auto-play system has already been tested for quite some time and has not yet gotten any complaints. Other new features include a completely new cabinet change and a sealed chamber which houses the amplifier.

There were two workshop sessions on the first day of the meeting. And the guests were treated to cocktails and a banquet that evening. The second day of the meeting started with a breakfast meeting for Rowe distributors and that afternoon there was a general meeting.



Show and Tell

It's that time of year again, show and tell at all the coming conventions. In fact, this column is going to tell you about some games to be on the look-out for; as well as show you some of the latest entries into the old pinball market.

Before I get to that though, I want to relate some information concerning the old book. First off, thanks for the incredible response so far. I am pleased beyond belief at the positive reactions so many of you have had. In terms of availability, the book is here—should even be at the AMOA. But for orders beyond this date, I want to give you all the information you'll need.

Don't. I repeat. Don't send me the money (I love getting it, but it's too much of a hassle to change funds over to the publisher). Instead, flood E.P. Dutton with your orders. Specifically, send all questions and checks, etc. to the following person: Leslie Elliott, E.P. Dutton, 201 Park Avenue South, New York, New York 10003, (212) 674-5900.

If there's any special inscription you want on the book, let her know and she will in turn let me know. This doesn't mean that I don't want to hear from any of you regarding your feelings about the book, I do, and welcome letters and calls whenever they come. I may not answer each letter as soon as I get it, but I promise to get in touch as soon as I can.

Once again, thanks for the positive reactions to the book. I'm glad that the last three and a half years produced a work that's so complete in its coverage of the pinball phenomenon.

But now, let's get back to the AMOA show. In fact, many of you are probably reading this column at the Hilton or back in your hotel room. Well, here are some names to roll around in your mind as you're walking the convention floors—Cleopatra, Power Play, Butterfly, Stingray, Hot Tip, Space Gambler, Vulcan, Golden Arrow and Wipe Out. There's more to see, but with these I think you'll see some surprises. In fact, try to match the manufacturer with the game.

Solid-state seems to be everywhere, and make sure to check those hospitality suites for some late

breaking news. Set aside your time to allow for visiting with old friends and also enough leeway for playing the machines you want to get a better fix on. You'll be surprised by much on the floor, whether it be pinball machines, video games or even pool table breakthroughs. With the addition of D. Gottlieb & Company, the show is even more representative of what's going on in the design rooms across the world.

So get your walking shoes ready. There's much to see and do. And when you're done with the show, let a native son of Chicago give you some spots to check out. For pizza, a late night snack, the likes of which you'll never have anywhere else, try Uno's or Duo's which are nicely situated between the Hilton and the Continental Plaza just two blocks west of Michigan Avenue. For something slightly special, try Sheraton's Kon-Tiki Ports, which offers great oriental food and is only three blocks north of the Wrigley Building. Try the Bakery on North Lincoln Avenue, for some true Chicago famous cuisine. Besides these few places, the loop and near north side offer some great dining places. But man doesn't live by food alone.

See the sights of this great city, architecturally one of the grandest in the world. Take a drive up Sheridan Road, through the north shore to set your sights on the Gold Coast. Check out New Town and of course, the Rush Street area for some of the city's best night spots. If you get the time, make a point to see the Museum of Science and Industry on Chicago south side. It is well worth the visit and is truly a remarkable experience. The art museums in the downtown area are also something to see, whether it be the place of the "lions" on Michigan Avenue or the Museum of Modern Art that's closer to the Hancock Building.

I could go on and on about my city, but suffice it to say that Chicago is far more than just a convention city. Go around and take in the sights of this lake-front metropolis. It is truly a great city that's worth looking at and experiencing.

But what about this month's games you're asking. Well, I'll show

you some surprises and also tell you about some developments in this the eleventh month of '77. Here goes...

Williams' ARGOSY

This four-player offers a departure in design from recent Williams' efforts such as Grand Prix and Aztec. There's a great deal of open space and some different shooting angles. But let's take the game from the top.

One lane and two roll-over buttons (which advance the bonus points) begin the action. The center lane is anything but an easy shot and the top right kicking rubber is also tied into the spinner, making it lit or not lit. As Williams calls them, the sling-shot stretched rubber rebounds are at the top and mid-right of the playfield, with the latter also adding out-hole bonus points.

Two thumper bumpers finish off the top, which is really a nudger's paradise if anything is to happen in the way of action and scoring. In fact, actual playfield scoring on this machine is low, everything is tied into the out-hole bonus, which can mean 200,000 points and the drop targets. In this respect, the game is very similar to Big Deal which also didn't offer too many "playfield points."

Anyway, the spinner on the right, when lit, can mean points in excess if the velocity of the ball is great enough to keep the old spinner spinning. The drop targets on the left, four in all, can also mean good things if you hit them all down, time and time again.

A kick-out hole at mid-right of the field is really the secret to points, since it controls double bonus, extra ball lane and also specials, depending upon what's been hit and what's lit. The Gottlieb bottom offers little or no nudging possibilities, but does feature a left side gate that's opened once you go through that top solitary lane.

In terms of play the game is a little off balance in relation to previous Williams' games of late. "Argosy" does have some good skill shots, with most players going for the targets at the left or the spinner and kick-out hole at the right. The play is quick, as is the case with Williams

Critic's Corner

By Roger C. Sharpe

machines; and since the game is a bit more open, players are going to get very few points, or a lot of points depending upon how good and lucky they are.

Graphically, Argosy is in ship-shape with a period piece that lavishly displays subtle tones and pastel images. It's a difference from the days of Space Mission, but also striking enough to get people's attention.

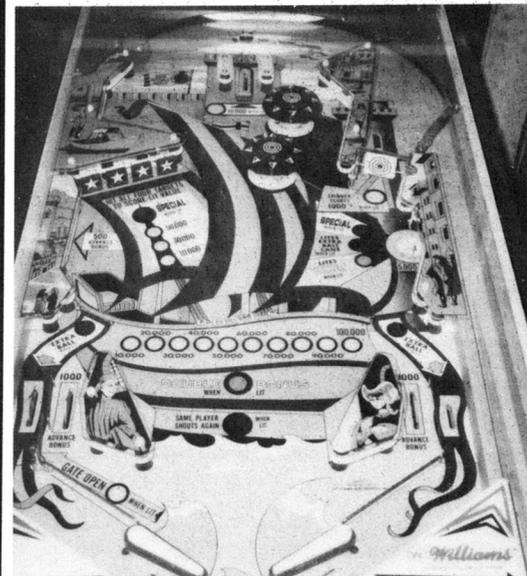
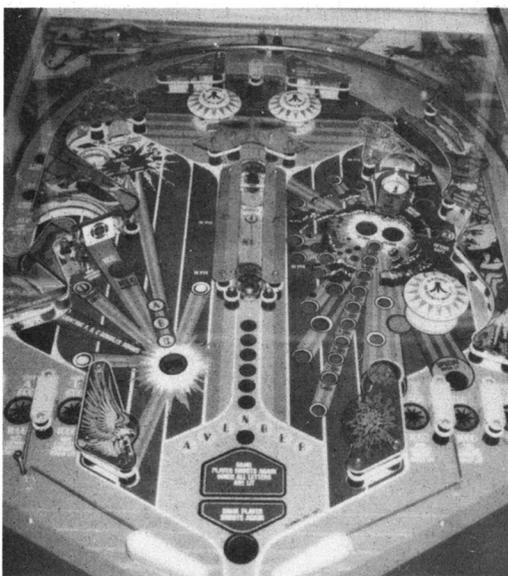
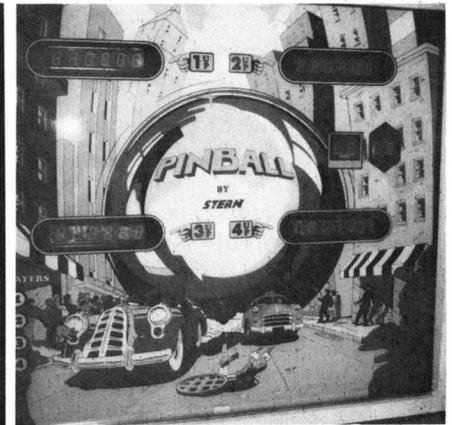
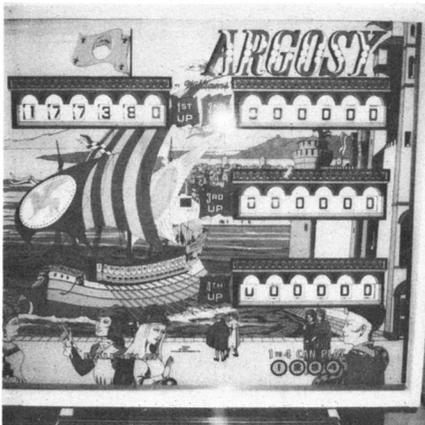
All in all, the game is pretty good, not great, but a good standard Williams' effort. Something new

Atari's AIRBORNE AVENGER

Get ready for Atari's first pinball machine. Actually their first two weren't that bad (from a playing standpoint), but this four-player has it head and shoulders over its predecessors. For the first time, Atari has something that's less novelty and more pinball machine.

Additionally, the extra width is finally utilized in a way that benefits the play of the game as well as the layout of the features. All in all, it's a giant leap in the right direction,

the top which supply most of the action in this area. A kick-out hole is at the left which is more a rebound shot rather than a straight flipper shot. A center roll-over neatly guarded by some posts offers another build-up for letters. At the right near the top there's also another kick-out hole with the same metal strip behind it that frustrated so many players of Gottlieb's Spirit of '76. Finishing off this right side, one finds another thumper bumper, a number target (3) just above, and



that I want to start is the following: Argosy is fine for three-ball play, just as long as it's set with three limits (somewhere in the 300,000; 600,000 and 8 to 900,000 point range). If a player can't get what he wants to get in three balls, he won't do it in five balls. Besides, there isn't that much to aim for on any one ball, especially with only ten steps on the bonus build-up.

Rating: ## ½

PLAY METER, November, 1977

although there are still flaws, but less glaringly than before.

The top offers two narrow lanes at the center with sloping rubbers toward the left and right. At the top right one finds a little kick-back kicker lane worth 1,000 or 2,000 points; just below it is a lane that advances letters (three in all), but we'll get into this later.

Two thumper bumpers are also at

three lower lanes—the far right returning the ball back to the plunger, the middle sending the ball down to the out-hole, and the left sending the ball to the right flipper.

The left side features a spinner setup with yet another kick-back kicker lane that can mean bonus points depending upon how many of the A, B, or C targets have been hit. Just below this entrance is another numbered target (1), and finishing off the side are yet three

more lanes. The far left sends the ball down to the out-hole; the middle features a gate which can be open to salvage the ball; and the right lane sends the ball down to the left flipper. Last, but not least, a center captive ball lane rounds out the action. There's more to the features than just this rundown, but you have to play the game to get the "feel" of what is going on.

Playing Airborne Avenger is a test unto itself since it's really two games in one. Remember when I mentioned letters a while ago? Well, this game offers you the chance to spell out A-I-R-B-O-R-N-E A-V-E-N-G-E-R, which is a mouthful without having to spell it as well. But letters alone is not the game if you want to score points. For the latter, one needs to hit those things that increase the out-hole bonus value. Things such as the A-B-C targets which give you double bonus.

The best shots in fact are those to the spinner at the left and to the C kick-out hole and three-letter advance lane at the right. By segmenting the game this way, you have a better than even chance to "beat" it; otherwise it can boggle the mind since there is so much to digest on the field. One of the problems of playing the game is that you run the risk of having a ball bouncing around, but not scoring any points.

There are also some inherent dead spots on this machine, where the action just isn't there. The center captive ball offers side rubbers that don't really do anything for a ball once it comes in contact with it. Some of the angles are also too steep for juggling the ball into better position.

The top right with the kick-back kicker and corresponding lane just below, can be sluggish at times. The same holds true when one is trying for the number 2 target and its complementary kick-out hole at the top left, since the incline from this to the flippers can mean instant death (for the ball; not the player). The bottom holds some good nudging possibilities which more than offsets the top, where either you get it in the lanes or you don't. But at least the attempt has been made to optimize the available space in a better fashion than was evidenced on either The Atarians or Time 2000. Once again, this game plays far better.

Although the game, as I've played it, is set for three-ball play, one for a quarter—it would do better as a five-ball game since there is so much going on. The big factor to consider with this will be repeat play where someone keeps coming back,

not transient play where everyone tries it once or twice and then leaves. The game has the potential to be a real winner if players were given more time to adjust to it. Even two three-ball plays wouldn't solve it, although it would be a step in the right direction.

The big thing is to try it. I think the earnings would increase substantially over what the game is already doing. And isn't that the name of the game for all of you "avengers?"

Rating: ###

Stern's "PINBALL"

Remember this game from the September issue where I reviewed it? Well, it bears taking another look because, if the picture is clear enough, the back glass shows that this is Stern's first solid-state effort. And on this game, it makes a big difference in the play and action. The thumper bumpers are more powerful, as are the flippers, making Pinball a far better effort than it once was.

In terms of the logic, if you notice a similarity with Bally, there's good reason. It's the same system, something that can only benefit this company in its attempt for wider acceptance and a new recognizability. Also, check out their tune which plays just before the game begins, it's pretty cute.

When setting this machine, three-ball play is in order. It works better this way, since it can be a high scoring game and has limited features and shots for players to hit. This last fact incidentally adds to the repeat play that I've noticed in two separate locations where the game seems to be drawing quite well.

For a new, updated, solid-state rating—Stern's "PINBALL" gets bumped up another ¼. Because for them, the game is a good one, and an indication of their desire to become more of a factor in the industry.

Rating: ###

That's really it this time around. Next month look for the beginning of AMOA games on review and additional advice on how the games should be set to maximize player enjoyment and earnings potential. Until then, I look forward to seeing many of you at the show; and hopefully autographing books wherever I can. So rest easy. Keep those games in good working condition. Talk to the players and find out how they feel, and lastly...Be well and prosper.

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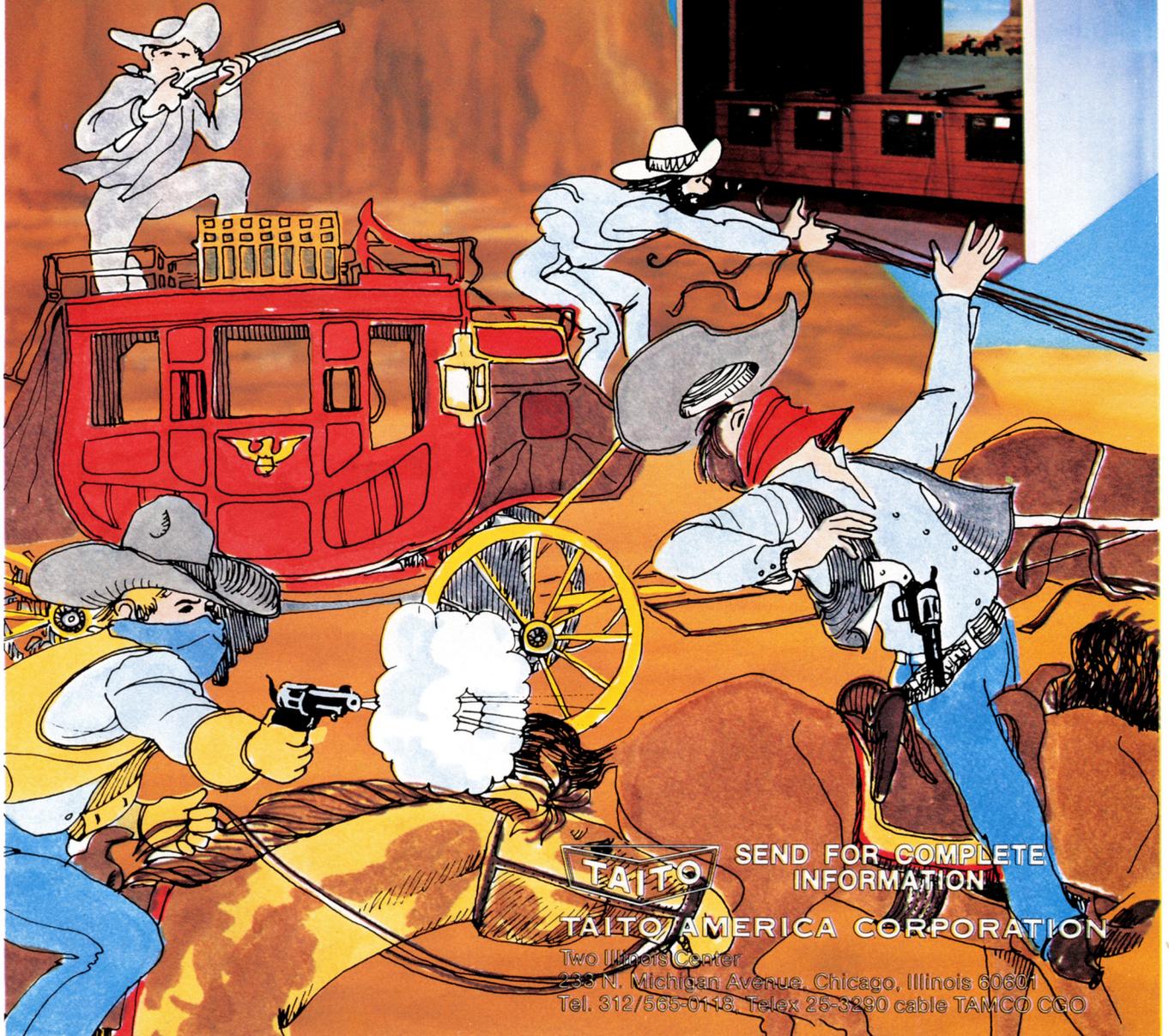
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By Gene Beley

Steve Shoemaker and the Redondo Fun Factory

What is "success" in the coin-op industry?

Success starts with S, right? Like Steve. Or Shoemaker.

Steve Shoemaker, owner of the 30,000-square-foot Redondo Fun Factory pier arcade in Redondo Beach, California, grosses more on some single games annually than some operators in a total arcade. Many operators that visit the Redondo Fun Factory, or hear about it, wonder about the secrets of Steve's success. Is it all just the location?

Super-casual Steve, who usually looks like one of the local beach bum natives, rather than a former "Young Man of the Year" in Redondo Beach, injects his philosophy. And he's well-qualified to philosophize, having majored in philosophy and literature at the University of Illinois.

"I looked at kids' rooms" began Steve, commenting on his funky decor that features everything from baby shoes to a tombstone and casket adorning the premises. "What do kids like?" he asked himself.

"Kids like to collect old signs," Shoemaker concluded.

And Shoemaker already had an ample supply. Prior to becoming an amusement machine operator, he owned the Sea Inn at the same pier location. The Redondo Sea Inn was a famous tavern because of thousands of relics hanging on the walls, ceiling, and anyplace where one could be nailed. License plates, signs, and other donated relics from customers were the foundation of that business, too, since it provided a chain reaction like word of mouth advertising. A person would bring a buddy to show him all the crazy things at the tavern and the buddy would bring another buddy.

"When a person donates a sign," feels Shoemaker, "they develop a sense of belonging. If they feel they belong, they will be less disruptive, too."

"This principle has worked out very well in my Redondo Fun Factory. Everything here is donated. I don't buy signs and nothing is for sale."

The Redondo Beach Pier has

been rapidly developed within the past five years from just a pier to a major entertainment, social, restaurant, and tourist complex. Shoemaker is quick to emphasize he took an area that was a loser and turned it into a moneymaker—as well as an asset for the city's objectives to promote tourism. The Redondo Fun Factory, he states, has also cut down on vandalism.

"I would have to agree with Shoemaker that he has improved the area," said Bob Riley, Redondo Beach city manager. "And he has improved the entire Pier area by providing entertainment. I have nothing but praise for his operation. He is there every day and on top of everything."

Mayor Dave Hayward said they have had no police problems and praised Shoemaker's contributions to the community.

Mayor Hayward cited Shoemaker's serving as a former president of the Chamber of Commerce and board of directors member. He also recalled the amusement operator recently sponsoring an international

table tennis tournament at the Redondo Fun Factory and sending the winner, a local young woman, to Canada, where she won in her class.

"We also appreciate how he hosts students from our sister city in LaPaz, Mexico, when they visit our city," Mayor Hayward stated.

What would the mayor recommend to mayors of other cities having to decide on a game center license application in their city?

"It's not the *game center* that should be an issue," Mayor Hayward began.

"Get an operator that cares about the community and maintains high standards to make it a truly family entertainment center."

"Opponents of arcades say 'It will attract the wrong kind of person.'" Shoemaker adds, "but the converse opinion of mine is an arcade, properly operated, will give kids with nothing to do, something to do, thereby keeping them from becoming the wrong kind of people.

"This proved to be true in Redondo Beach. My place has had a great effect in keeping them out of mischief. A well-lighted, well-run arcade-game center is an asset to any community where the kids are, or might be a problem.

Shoemaker began originally with only 1,500 square feet and 35 machines. After a short (one week) trial period of leasing machines from another operator, he decided to buy his own, which thrust him into the business up to his shirt-sleeves.

When he first began, he could be seen every night wheeling his tool cart around, fixing machines, keeping them fully operational. He also carried the operator's usual back-breaking load of monthly payments when he first started, although he now has a reputation for paying cash (and buys nearly every machine that comes on the market).

Now Shoemaker employs three managers, one fulltime technician, and about nine other employees.

The 1500-square-foot "baby" has matured to 30,000 square feet with more than 400 machines. He also has a Tilt-a-Whirl carnival ride, bumper cars, skee balls, and such attractions as Penny Falls games from London. The latter grossing \$9,000 its first month led Shoemaker to make some innovations, apply for patents, and build his own version called Gravitation, which he is now selling and leasing to other operators.

Asides from the Penny Falls qualifying as his most successful game, what does Shoemaker consider the other best deals he's bought?

"Outhouse pitch," he laughs, explaining that is the toilet bowl game he made that cost him \$57 in electronics and junk parts. "It took in \$358 the first week!"

The Atari F-1 is the best arcade game he's ever seen. The best pinball is the new Atari Airborne Avenger, which he location tested for the factory.

When a game is great, Shoemaker usually buys several and features them together. And to emphasize how great the new Atari Avenger is in his opinion, he rates Evel Knievel solid state pinball as "the greatest multiple game we've used." Shoemaker featured six Evel Knievels lined up together at the Fun Factory.

Shoemaker tests games for all the major manufacturers, which is a good trend, he agrees, for them to test in operator's locations. "Many of them seem to make a mistake in having their equipment tested in their own locations, like Bally's Aladdin Castles.

"Then they are asking an employee to be critical of their boss's merchandise. As a result, I still detect production errors that shouldn't have occurred."

Shoemaker doesn't like games that require the customer to push a button to start it, or have special knowledge to play it. "Ten percent of my customers don't know what 'Insert Quarter' means," he chuckled.

Some Japanese tourists visiting the Fun Factory put a quarter in Midway's Guided Missile. They didn't press the button, but thought they were playing the game, because the visuals made them *think* they were playing it, until they saw the score was zero at the end.

"The best games are the ones where you drop in a quarter and it works," Shoemaker repeats.

"I also believe in buying the best and most expensive games," Shoemaker continues. "It took awhile to convince myself that an \$8,000 game was a good buy," he grinned, "but if you buy a game new, keep it in top condition, used games will retain their value amazingly well in most cases."

The best operating tip he feels he's learned to pass on to other operators is "put a fan in every game you get."

"I won't plug in a game until I make sure it has a fan," he said. "I use a squirrel cage type fan with no screen in front of it. Keep the air moving.

"Bally's new solid state pinballs are running hot because of the electronics in a confined space.

"The best solid-state manufacturer thus far is Midway. I've never had a board out of a Midway game. They've been very reliable."

The best financial step forward, Shoemaker believes, was "changing all pinballs to one play, one quarter."

"It eliminates complaints that a customer didn't get his second game and makes that game worth more to the customer. It also promotes less abuse on the games."

Shoemaker continues to develop his Fun Factory and hopes to add three more major carnival-type rides. "The rides are a tremendous asset to an arcade," he revealed. "The rides increase traffic. People will go greater distances to ride a ride than to play pinball."

How about advice to other operators that hope to obtain a lease agreement with a redevelopment agency or city?

"You have to be patient in dealing with cities," advises Shoemaker. "They don't make up their minds fast. They don't deal on profit-and-loss statements, but the long-term effect of what it will do for the city ten, twenty, or fifty years from today."

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The emergence of Gremlin

By Lynne Reid



In two short years, the game industry has become a technological leader rather than a follower. And during that time, Gremlin Industries has emerged as one of its major innovators.

The San Diego-based company started out as a manufacturer of oceanographic instruments in 1970; then in 1973 it entered the coin industry with the introduction of its first wall game entry, Playball.

Since then, the company has branched out in different directions—expanding its line from wall games to thematic video games like Hustle and Blockade to (its latest direction) more sophisticated video games like Depthcharge and Safari, which will be on the floor at the AMOA show. In addition, the company now has a sister corporation, Noval, Inc., which is presently marketing electronic equipment for educational purposes.

The combined talents of Lane Hauck, director of research and development, and Agoston Kiss, who was instrumental in the development of the Digital Fourier Analyzer, have been chiefly responsible for Gremlin's current microprocessor design system.

The two men share a unique working relationship. Hauck, an extremely competent hardware engineer, understands software; and Kiss, who is a scientist and software architect, has a similar understanding of hardware. The challenge to them is to put a game idea into an efficient architectural microprocessor system.

They start by defining the architecture of the product. The architec-

ture system designates which tasks are to be accomplished by hardware and which by software.

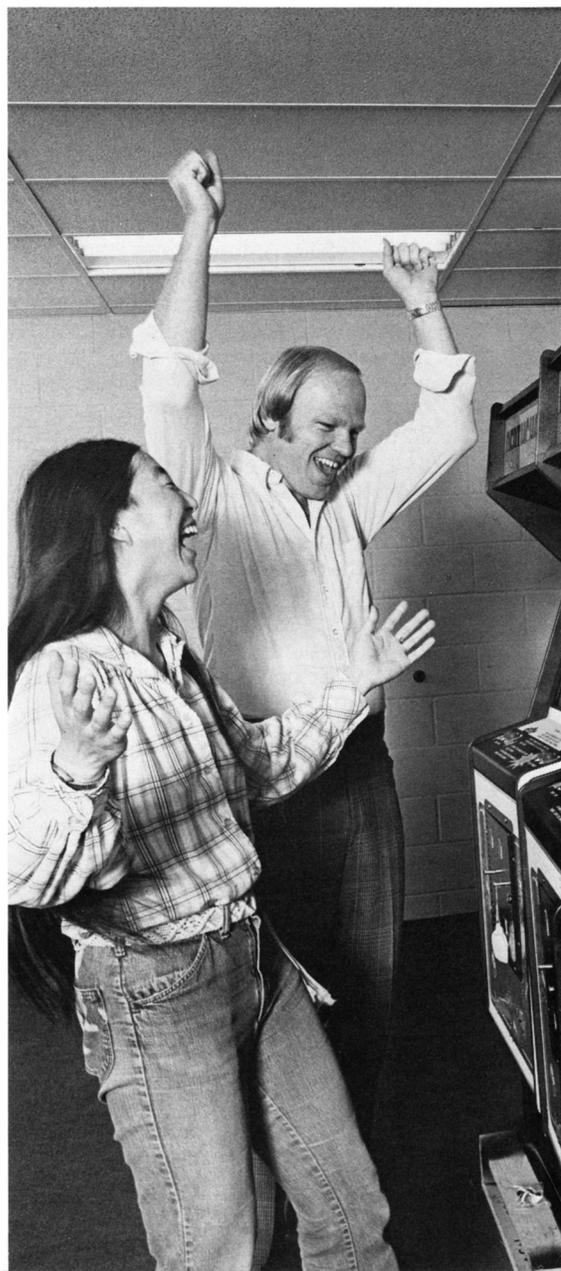
"Through this architecture," explains Hauck, "we have achieved excellent performance with commonly available components."

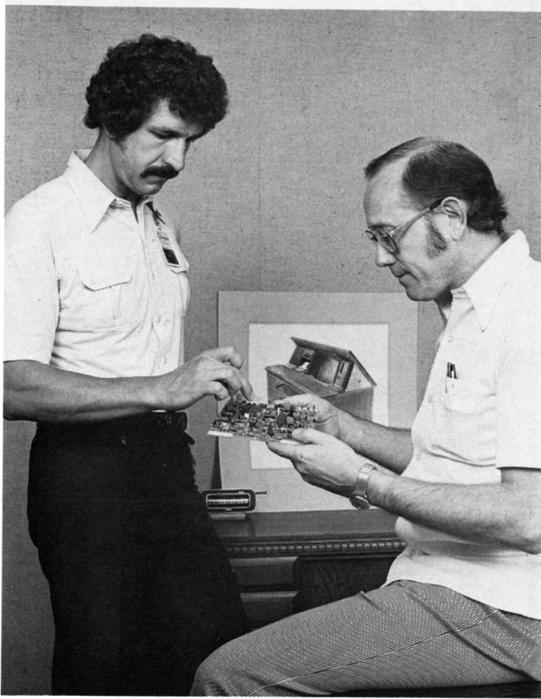
Gremlin's microprocessor system has been through many transformations since first incorporated into its third wall game, Fooswall. An improved version of the system was used in Gremlin's new generation video games: Blockade, CoMotion, and Hustle.

Hauck, interested not only in the theoretical "Will it fly?" aspect of the game but also in the more pragmatic "Will it sell?" aspect, has taken additional interest in testing the new games on location. The purpose is not only to gather sales and marketing information and gauge how much the game can make, but also to find out what kind of player problems there may be with the game, before going ahead with a full production run.

"Player reactions are an excellent indication of the game's potential popularity," reports Hauck.

A good example of how seriously this market analysis is taken, can be seen in the failure of Gremlin's Depthcharge One earlier this year. Gremlin had released the game earlier for on-location testing, with hopes of a big production run to follow quickly. However, the game fared surprisingly poorly on location, so much so that Gremlin had to take a second look at the game. The problem was, quite simply, that the players had difficulty using the original player controls. The game





Inspection, promotion, experimentation and recreation—all a part of the Gremlin system.



was modified with new player controls, field-tested again, and now Depthcharge is a hot new game on the market.

As a result of Gremlin's engineering expertise, there's been sizeable technological spinoffs into other computer-oriented products. Because the marketing and engineering of these products is more varied than the standard product line at Gremlin, a separate corporation has been formed to provide the hardware and software support.

Noval, Inc., Gremlin's sister corporation, is presently marketing two new revolutionary products. The Noval 760 is a personal computer system in a desk cabinet, and Telemath is an innovative educational computer developed by Noval and Gremlin for the San Diego School District. Soon other products for both business and industrial markets will be available—once again, evidence that games manufacturers are becoming today's technological leaders.

Keen marketing plays an important role in Gremlin's success. Selling games is basically handled by C. Malcolm Bains and Marketing Assistant Leonard De Groot.

An example of Gremlin's unusual flair and showmanship is the recent cross-country promotional tour conducted this past spring by Bain and Gremlin Girl Sabrina Osment. Their introduction of Hustle in this manner proved so successful that they're out for a repeat performance with Depthcharge this time.

In addition, a second Gremlin Girl, Michele Anderson, has joined Sabrina in challenging to a game of

Depthcharge every operator who attends the shows. At the end of the current tour, a drawing of all the Depthcharge competitors will be held with the winner receiving a weekend in Las Vegas, all expenses paid, plus \$1,000 worth of chips.

"What the future holds for our industry," inserts Gremlin President Frank Fogleman, "is simple—everyone wants a winning game. New games are the lifeblood of this industry. That's what keeps interest and profits up. It's an on-going challenge for any manufacturer."

Gremlin also prides itself on its relations with its 200 employees. Gremlin employees share stock ownership. Presently they own one percent of the company through a trust fund, which pays them the full worth of their stock after ten years of service. The value of the stock is based on the company's year-end profits.

Other employee-relations strong-points are an in-house newsletter called "Shop Talk" which reports the goings-on the young company, an employee-management luncheon held on the first Thursday of each month, employee educational benefits, and the offering of management-level courses for potential supervisors and managers within the company.

"We hire good people," says Gerald Hansen, a vice president with the company. "And we're trusting that their attitude toward the company will show in quality workmanship. We want this to be a place where people *want* to work. And creating a good climate heightens cooperation and efficiency."



Atari pinball

Atari's new Airborne Avenger reaches the ultimate high in pinball adventure and earnings. Player excitement is unparalleled by the dramatic target action, supersonic sounds and a dynamic visual attraction.

Airborne Avenger is the solid-state four-player flipper that will stand out in every location. The bold graphics are an exciting visual attraction that draws players to the game. More target action is provided on the wider playfield with a multitude of high scoring opportunities.

Airborne Avenger offers target variety for every level of player expertise. Players will be pleased with the lightning-speed ball action and futuristic targets on this game.

The options available to operators include 32 score levels, adjustable maximum credit levels, four different "Specials," add-a-ball conversion, a unique Tilt sound and more.

A wide variety of skill shots maximize the overall appeal: the spinner-kicker, the bonus kicker lane which catapults the ball in play to the top of the playfield, are among the features.



Table soccer

The new 1978 Dynamo Fussball Table offers several design features for improved looks, maintenance, and play. Its reversible textured or smooth-playing surface permits the player to select the play surface he prefers.

The recessed glass field is protected by a built-in light wood-framed tray, which prevents breakage, is easily removed for cleaning or repairs and requires no prop or stop. A special feature of the table is the metered ball trap which allows the operator to preset the number of balls to be played in any game—seven, nine, or eleven.

A bonus feature is that an extra set of balls can be stored within the table in case of loss or damage. Another feature of Dynamo's new table is its beveled sidewalls. This unique engineering design keeps the ball on the table, in play, during bank shots and allows for a powerful bank shot.



Pinball by Stern

Stern Electronics, Inc., has introduced its first totally electronic pinball game, Pinball.

Pinball, which is a popular four-player game that was introduced recently in the electro-mechanical version, has a built-in test program that displays all microprocessor and memory functions.

There is also displayed the high score to date on the machine for added incentive for players.

Among the features of this game are the right eject hole which can spot any one of five features, five individual drop targets, a spinning target, three pop bumpers and a top eject hole.

Foreign pin game

Sonic has come out with another four-player electro-mechanical flipper game which should earn more than its share of quarters.

The game, Jai-Alai, which has as its motif the fast-moving sport of ricocheting balls and players with scoops, is an interesting two-flipper game that features a spinning target that opens onto a lane that leads back up to the top of the playfield.

Two pop bumpers in the top center of the playfield meet the ball as it enters the playfield by way of one of the three lanes. A hidden kick-out hole on the left side provides a skill shot for players, and the tunnel on the upper right side of the playfield fits in naturally with the Jai-Alai theme of ricocheting balls.

Scoring in this game, like in Sonic's earlier games, comes in 1,000s not 100s. And the scoreboard allows for six-figure scoring. Other features of the game include add-a-ball and a double bonus which could score as high as 200,000 points.

The green and yellow colors of the game make it an attractive follow-up for the company which has already featured Mars Trek and Butterfly.

Dollar changer

Amusement Electronic Service of West Palm Beach, Florida has come out with two new products for the coin-op industry—a dollar payout changer sequence and a solid state trigger module.

The dollar payout sequence Model DPS-1 can be installed in Rowe bill changer Model BC-9. By allowing all three hoppers to be filled with quarters, this unit will triple the change-holding capacity of the machine. The unit will automatically switch hoppers after each dollar change payout.

Model DPS-1 installs in minutes and is guaranteed for ninety days.

The solid state trigger module Number SST-1 replaces R.O. contacts in all Seeburg phonographs—Electra models and up with solid state components.

The module can also be installed in minutes and protects Tormat memory unit from excess voltage.



Gottlieb two-player

Gottlieb has come out with a new two-player flipper game, Super Spin (It is the two-player version of Gottlieb's Jet Spin).

The game features a futuristic motif and roto-targets and vari-targets for the players.

The roto-targets, located at the top lefthand side of the playfield, rotate to give the players various scoring possibilities. Hit indicators in front of the targets light to show which of the three exposed targets is hit. The center target advances the bonus from one step to five steps and scores up to 5000 points. A special "Star" roto-target scores special when hit.

The vari-target, situated at mid-playfield on the righthand side, lights the bulls-eye target for special score when hit to the top position.

Two targets—one just below the vari-targets and one next to the roto-targets—will score an extra ball feature when lit.

The electro-mechanical scoring display allows for a player's score to go up as high as 199,000 points because of Gottlieb's 100,000-point light.

The backglass and playfield are primarily blue-green with yellow streaks coming from the futuristic jet board exhausts.

The game also comes with a kick-out hole, two pop bumpers, and three lanes at the top of the playfield.

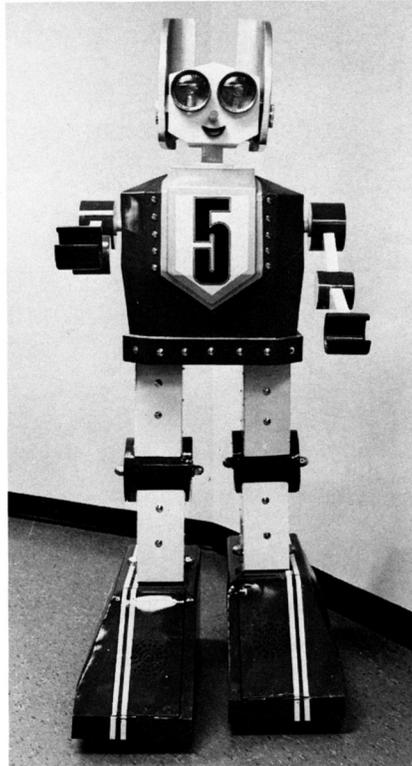


Dynamo pool table

Dynamo's new pool table comes in three distinctive finishes—rose-wood, black on black, and mirrored and black.

The game features a regulation size (2 1/4-inch) cueball that has been homogenously and phonically cast as well as dynamically balanced to eliminate any imbalancing weights. The new models also offer a built-in chalk and drink deflector to capture chalk, liquids, or any other debris. This allows a ball to roll freely through the ball trap without hanging or clogging.

Another feature of the table is the special leg levelers which do not have to be removed during installation, thus cutting down on the time it takes to set up a Dynamo table.



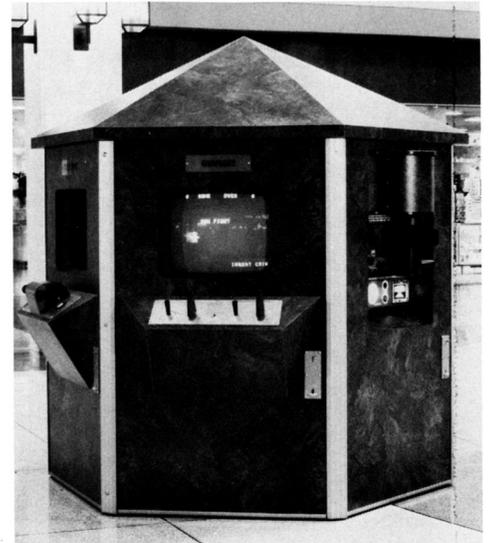
Tin Man

Robocon, which was originally developed in Japan five years ago, is now being distributed in the United States by Universe Affiliated International, Inc.

Robocon is a highly-sophisticated piece of equipment which acts by remote control. The robot walks, talks, nods, has flashing eyes, and is available in all colors.

The remote-controlled machine is 5 feet, six inches tall and two feet, two inches wide. It weighs 200 pounds.

The Robocon-radio-wave control robot can be controlled from as far away as 75 yards. The control system is a radio-wave control transmitter, and the whole package comes complete with a set of spare parts.



Video kiosk

A tremendous response from shopping center trade shows has thrust Bob Portale Jr. fulltime into manufacturing, selling, and leasing his Specialty Entertainment video kiosk. He and his partner, Rick Page of Stanton, California, are seeking operators and representatives worldwide to handle the demand.

Portale, son of the late, well-known Los Angeles distributor Bob Portale, has been a street operator, but has his own route up for sale—due to demand of the video kiosk. Inquiries are coming from as far away as Canada, Puerto Rico and Australia.

The \$16,000 unit includes five games of the purchaser's choice, along with a Standard bill changer that holds up to \$600 in change. The frame is steel-constructed with 3/4-inch plywood and anodized aluminum. Tempered glass, rather than plexiglas, covers the monitors.

Portale said one of the biggest advantages in operating this kiosk is that the operator can write some "highly advantageous percentage-of-the-gross leases in his favor." Lack of competition will be a factor at that price. Earnings up to \$1500 a week are reported from shopping malls, Portale said.

All of the kiosk games are available in a variety of Formica colors. Flat monthly leasing rates can be negotiated and trade-ins of other games are accepted. Also, custom orders of kiosks to feature up to nine games and a changer are possible.



Seeburg's latest

The new Seeburg—160 phonograph offers an unusual graphic design concept combining light, color, and action. The 160—selection phonograph features a back-lighted panel in blues, oranges, reds, and magenta, trimmed in chrome.

The design elements are further enhanced by a cascading light fountain which flickers dramatically down the front center panel top-to-bottom.

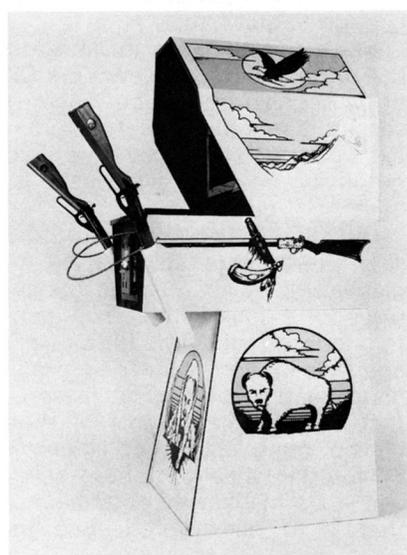
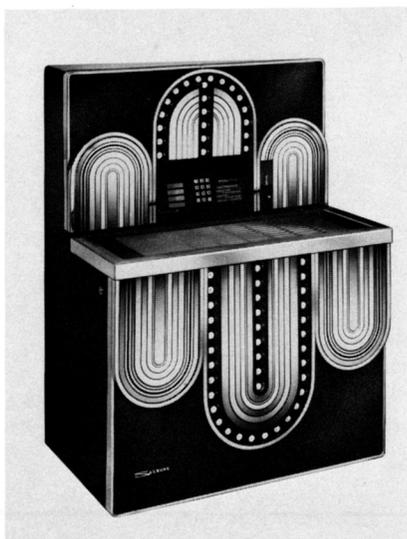
Two matched exponential horns provide wide angle dispersion of mid-range and high-frequency sounds are housed in the upper portion of the console cabinet.

Two woofers are located in the lower position to assure a superbly rich bass response. Together with the horns in the upper part of the console and crossover network, this system achieves a musical environment that surrounds the location with full-range stereo sound.

The music selection play center features a ten-button digital selector, coin slot, provisions for dollar bill acceptor, and an all-coin accumulator panel.

A computer-type three-digit "now playing" selector panel located in the music selection play center flashes numbers as the record mechanism scans. The number of the musical selection being played remains lighted allowing the customer to identify the title for replay.

In addition, for the location where quadraphonic sound is desired, a Seeburg—160 quad conversion package has been designed to achieve a quad result. The package consists of four lighted speakers, exclusive quadraphonic decoder and quadraphonic lower assembly panels.



Two new ones from Amutech

Amutech, Ltd. will introduce two new products at the upcoming AMOA show.

The first game, The Great White Buffalo Hunt, is a twin rifle shoot which is non-video using all solid state circuitry and a microprocessor. The game has realistic sounds of animals moving in a natural environment. The player gets an unlimited number of shots for a specified time (which is operator controlled). High score will entitle the player to additional time.

Spaceace is a unique space game which uses a microprocessor with space sounds and a 25-inch color monitor. The player guides his space ship by rocket bursts and combats his opponent with phazer fire.

He also has the opportunity to utilize hyper space to avoid destruction by his opponent. The game is time controlled with the operator option.

With three you get eggroll

but five will get you ten

By Roger C. Sharpe

There is a growing unrest that one senses in traveling around the arcades of the land. It's coming from the players and what they're saying isn't going to be popular with most of you who are about to read this article. To further complicate matters, I tend to agree with the players, which obviously isn't going to raise my stock. But then I've never shied away from something just because a few toes would feel some pressure.

Let me state at the onset, that the games (pinball machines, what else?) are pretty damn good lately. There seems to be something for everyone; in fact, there's almost too much for everyone, but that's for discussion at another time. The issue revolves around the playing of today's games and my own particular fascination of what I perceive to be the video games' dictating of how pinball machines are to be operated. So as not to confuse anyone, I'll rephrase that since it's an important notion.

Video games time out a different rate for the player—a minute or even minute and a half of play for a quarter. It's neat, quick and highly profitable for both operator and distributor alike, not to mention the manufacturer. So along come these "new" games and suddenly the old standard is shaken. Pinball machines with their "sluggish" two- to three-minute play, with (heaven forbid) two plays for a quarter, is no longer satisfactory. Okay. I'll accept the premise that competition has a

way of changing things. But in truth, the games never competed between themselves. There has always, and always will be room for both video games and pinball machines.

The problem is that the pinball machine is suffering from this convoluted competitive logic. The cry that arose was to speed up play, since more play meant more pay. And so the time came when the pinball machine altered its face, not physically but perceptually.

The three-ball game was born and with it went any sense of reason or rational thinking. Everything's three ball. After all, the operator was no fool, he knew that if he put a three ball game next to a five ball game, the latter would outdraw the former—but obviously not fast enough to suit him.

Move this thinking to an add-a-ball territory such as New York City or Wisconsin, and you begin to sense the real trouble. There are no extra games to win, only balls (if you get lucky, you can even make it a "five ball" game).

But that's bearable you might say. Players are still playing the games. However, change the two plays for a quarter three-ball game, to one three ball game for a quarter and what you have are many dissatisfied players. The reason is that pinball isn't a game of speed played on a television screen or behind the wheel of a make-believe car. It's a medium of entertainment that is to be savored, one that

demands time in order to understand and appreciate its subtleties.

The difference between these two categories of games is clear and yet one is faced with a dilemma that the industry itself has created. And unfortunately, the players are the losers. Now before I madden all of you, I'm not asking for straight five-ball or even three-ball play, nor am I talking about one, two, three or one hundred plays for a quarter. I *am* talking about a sensible approach to pinball for both players and industry members alike, something that everyone can live with... Honest.

What I am advocating is a sensible evaluation of the pinball machines that enter through your doors. In many ways it's an extension of what I do when I review games, and because it is I'm going to begin incorporating it in my "Critic's Corner." The idea is simple. Look at the game. Play it. See how the features are tied together and what a player has to do in order to get a free play or an extra ball. Let me give you an example.

Remember Bally's Night Rider? I think most would agree that it was a pretty decent game. On three-ball play, all you have to do in order to light the bottom out-lanes is to get one bank of drop targets down—that's it. Get down a bank of drop targets a second time and the special pops. Not bad you say? Players liked the action of the game?

Well, take this same game and turn it into a five-ball machine and suddenly you have a very different playing game. You have to get both banks of drop targets down in order to light the bottom lanes; do it again and the special pops. The difference is obvious. You have to work twice as hard on a five-ball game. You can't favor one side or the other, and instead, have to play a more balanced game of pinball. All it is is two more balls and the entire game changes. More importantly, it offers the player a greater challenge, something he can't master overnight. Think about it. How long will the extra two balls last? Isn't it worth it for the increased play? And if you don't think play *will* increase, try it.

The list is endless where games can better be gauged if they're at five-ball versus three-ball play. Lest you think my idea goes in only one direction, it doesn't, let me say that the opposite also holds true. Some games are better as three-ball games. Many of the recent Williams' machines are better off at three ball. Bonus points and fea-

tures are easily attained in this format and the game doesn't lose anything.

The question remains though about three-ball versus five-ball play. I for one am a firm believer in the credo that the player shouldn't get screwed any more than he already does. Give him (and her) the chance to get to know the game. The way it is now, too many players are feeling that they're getting gyped. And they are, especially in New York City with its one play for a quarter, three-ball play.

If pinball is to get new players interested, if it is to keep the young players (who don't have all that much money to spend), the games are going to have to be set a bit more in the player's favor. It's ludicrous to see a three-ball game set with five-ball limits for specials, and worse, with only two levels to hit. How often has it been where I see a game (three-ball) set at 100,000 and then 240,000 points, and that's it. Give the player a break, by giving him another limit, or at least give him two more balls to play. The extra minute of play, or even minute and a half, isn't going to break the operator.

If you can't live with this concept then try straight quarter play on a

five-ball game. With inflation, it's more than fair to everyone. If a player can't do what he wants to do in five balls he doesn't deserve any more. I'd go so far as to say that this is the ideal situation for today's player. Some would argue for two three-ball games for a quarter. Well, the extra ball doesn't really amount to that much. Even the extra game doesn't mean too much. A five-ball game isn't boring, doesn't take that much more time.

The last two points are what one hears all the time, from those sold on the idea of three-ball play. Well, again it depends upon the machine. Each one has to be judged on its own merits. But somehow play has got to increase on a machine when it gives the player a bit more time to test out the angles and get a "feel" for the way the game is playing.

All I ask is for each of you to consider this. The idea isn't that revolutionary. It's sensible for today's player. It *can* mean more money in the cashbox, since the players will react if they know they're being treated fair and square. Take the chance and put a five-ball machine next to a two three-ball game machine. See how they do against each other when it comes to earnings. The cream will

rise to the top.

The players will support it with their quarters, and isn't that really the name of the game? Let's not lose sight of the people who are keeping this business alive. They deserve a fair shake and some extra concern on your part. After all, where would you be without them...probably with a lot of games where it didn't matter what they were set at.

But that's not the real world, and I for one think that the time has come to get all of you thinking about your customers: those grown-ups and kids who keep you in business and don't really ask that much from you in return.

I don't know how any of you are going to take this little bit of advice. You can tell me at the show (and I'm sure many of you will) and you can write in to the magazine with your feelings. Tell me what you think about this proposal. Let me know if you agree or disagree and tell me the reasons behind your decision.

It's something that's got to benefit all of us. So don't write it off without giving it a chance. Trust me...better yet, trust your instincts. Besides, what's two extra balls in the long run; maybe everything, maybe nothing.

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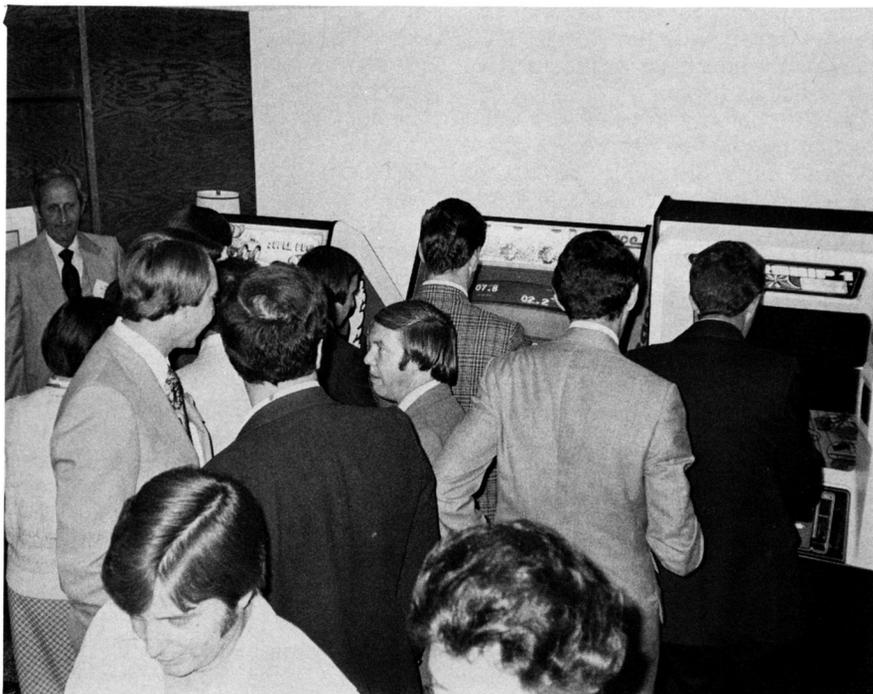


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Convenience store owners decide on the practicality of coin-op games in their locations.

Possible new locations?

Atari's hospitality suite at the National Association of Convenience Stores annual meeting in Toronto was continuously crowded with enthusiastic players—convenience store owners. Many store owners were introduced for the first time to the idea of having an operator place games in their location. The interest and response was highly favorable.

Four games were displayed in the Atari Suite—Time 2000, Starship 1, Drag Race, and Super Bug. Brochures on other current games were distributed to store owners as well. Howard Rubin, eastern regional sales manager, and Carol Kantor, manager of marketing services, represented Atari at the meeting September 19-21.

This was the first time a game manufacturer has displayed products to the Convenience Stores Association. "Because of the overwhelming response we had at this show, we are confident that operators will have the potential to open 2000 to 3000 new convenience store locations in the United States and Canada. We recommend that operators contact store owners in their areas in the near future to pursue this opportunity for expansion," said Howard Rubin.

At this meeting store owners had

the opportunity to talk to each other about the potentials of games in their locations. They discussed the added revenue possibilities and the concept of utilizing operators for the games.

The possible negative factors of loitering and vandalism were also discussed. Store owners realized that with good management these problems would not be major. It is similar to having young people come in to buy the frozen drinks and other snack items. In a presentation to the association members, Southland Corporation expressed its enthusiasm about the games in its 7-11 stores and gave other store owners an indication of the potential increased revenues per square foot attributed to the games.

Atari representatives at the NACS were there to give store owners information about their products and the coin-op game industry. Location representatives were referred to distributors in their local area to arrange for placement of games in their stores.

In addition to enjoying the games in Atari's hospitality suite, the convenience store people became aware of the income potentials and how the game operating business can benefit their profitability.

Sega earnings

Sega Enterprises, Inc. recently reported net earnings of \$273,000, or 14 cents per share, for the fourth quarter ended June 30, 1977 compared with \$534,000, or 27 cents per share, in the same period for 1976.

Net earnings include a foreign exchange translation gain of \$151,000, or 8 cents per share, in the fiscal 1977 fourth quarter and a foreign exchange translation gain of \$22,000, or one cent per share, in the 1976 quarter.

The increased revenues reflect the inclusion of Muntz Manufacturing and Kingdom of Oz businesses, which were acquired during the fourth quarter of fiscal 1976, and a new activity, Sega Centers, which the company started during the second half of fiscal 1977.

For fiscal 1977, net earnings were \$347,000, or 18 cents per share, compared with \$1,916,000, or \$1.00 per share, in fiscal 1976. Net earnings include a foreign exchange translation gain of \$432,000, or 23 cents per share, in fiscal 1977, and a foreign exchange translation loss of \$226,000, or 12 cents per share, in the restated fiscal 1976. Revenues for the year were \$29,997,000 versus \$24,229,000 in fiscal 1976, with the increase attributable to the acquired and new businesses.

Sega attributed the declines in net earnings primarily to costs associated with the company's manufacturing operation in the United States, coupled with disappointing sales in the United States amusement game market. As a consequence of the weaknesses in United States operations, the company lowered selling prices and reduced the carrying amount of game machines in inventory.

Operations in Japan, the company's principal market, were profitable in fiscal 1977, but year-to-year operating income declined due to lower gross profit margins and increased selling, administrative and general expenses.

In the United States, Sega opened three new family-oriented amusement centers under the Sega Center name during the fourth quarter, adding to the first Sega Center opened earlier in the fiscal year. The company expects to open two additional Sega Centers during the first quarter of the new fiscal year.

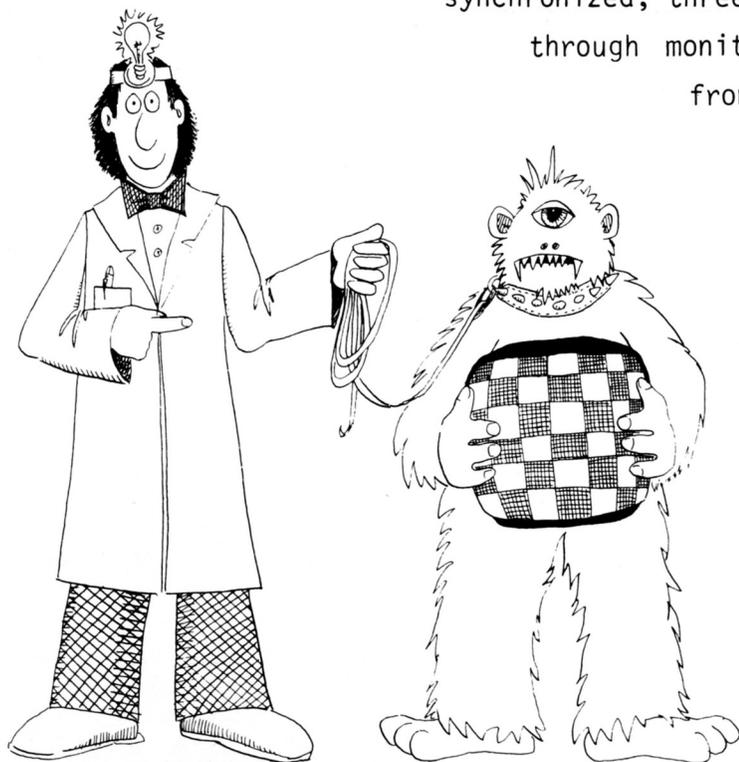
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Equipment Systems and Devices, Inc., a Philadelphia manufacturer of ESD multiple price three and four coin slides, money boxes, coin kits and locks has announced that it has a new toll-free phone service (800-523-1510). The service is available to distributors and owner operators in all 49 states with the exception of Pennsylvania.

In making this toll free service available Harvey Gitlin, president of the firm, commented "It is vital in today's market for the manufacturer to maintain an open line of communication with the customer."

Bally retains TRG Communications

Bally Manufacturing Corp. of Chicago has retained TRG Communications, Inc., as its sales promotion agency. Initial emphasis has been placed on programs for the company's coin-operated and home pinball machines and its subsidiary, Aladdin's Castle, a chain of 106 coin-operated entertainment centers in major malls in the United States and Canada.

According to the announcement by Bally director of marketing, Ross B. Scheer, TRG's current efforts will be directed to the introduction of the company's new Evel Knievel pinball machine.

Manufacturer establishes medical center

NSM and Lowen-Automaten have together invested in a medical center where all their employees can (free of charge) consult specialized doctors. And this is not only in the case of illness but also for preventive measures.

The medical practitioners have undergone special training and investigate the places where people work in order to improve the work situation.

For instance, they check to make sure the secretaries have the proper chairs—not too low, not too high—and also that the people work in rooms with good ventilation, etc.

Gottlieb parts catalog

Marshall Caras, vice president of marketing for D. Gottlieb & Company, announced recently the availability of the new Gottlieb Parts Catalog for 1978.

Caras took the opportunity to make "statements of position" in connection with the release of this new Parts Catalog. Said he, "Gottlieb fully intends to continue production of electro-mechanical flipper pinballs in the future coincidental with production of 'solid state controlled' pinballs to be introduced this fall."

Caras added, "As has been the policy in the past, Gottlieb will continue to supply parts, service and circuits for at least five years after production on all flipper pinballs regardless of the controller system used. There will be no such thing as a prematurely obsolete Gottlieb game; therefore, resale value can be expected to remain high."

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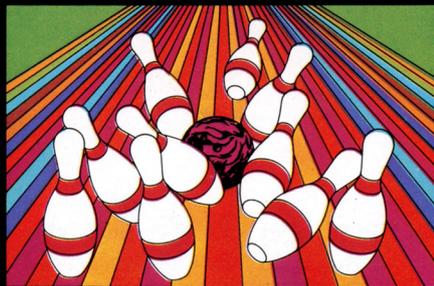
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Super Bowler games currently in stock, our latest figures suggest that the demand for this unique product may very well press our ability to supply sometime in the next few months. So if you haven't had a chance to see Super Bowler in action, we suggest that you do so soon. When it comes to exceptional profitability, there isn't a moment to lose.

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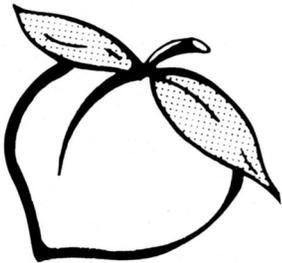


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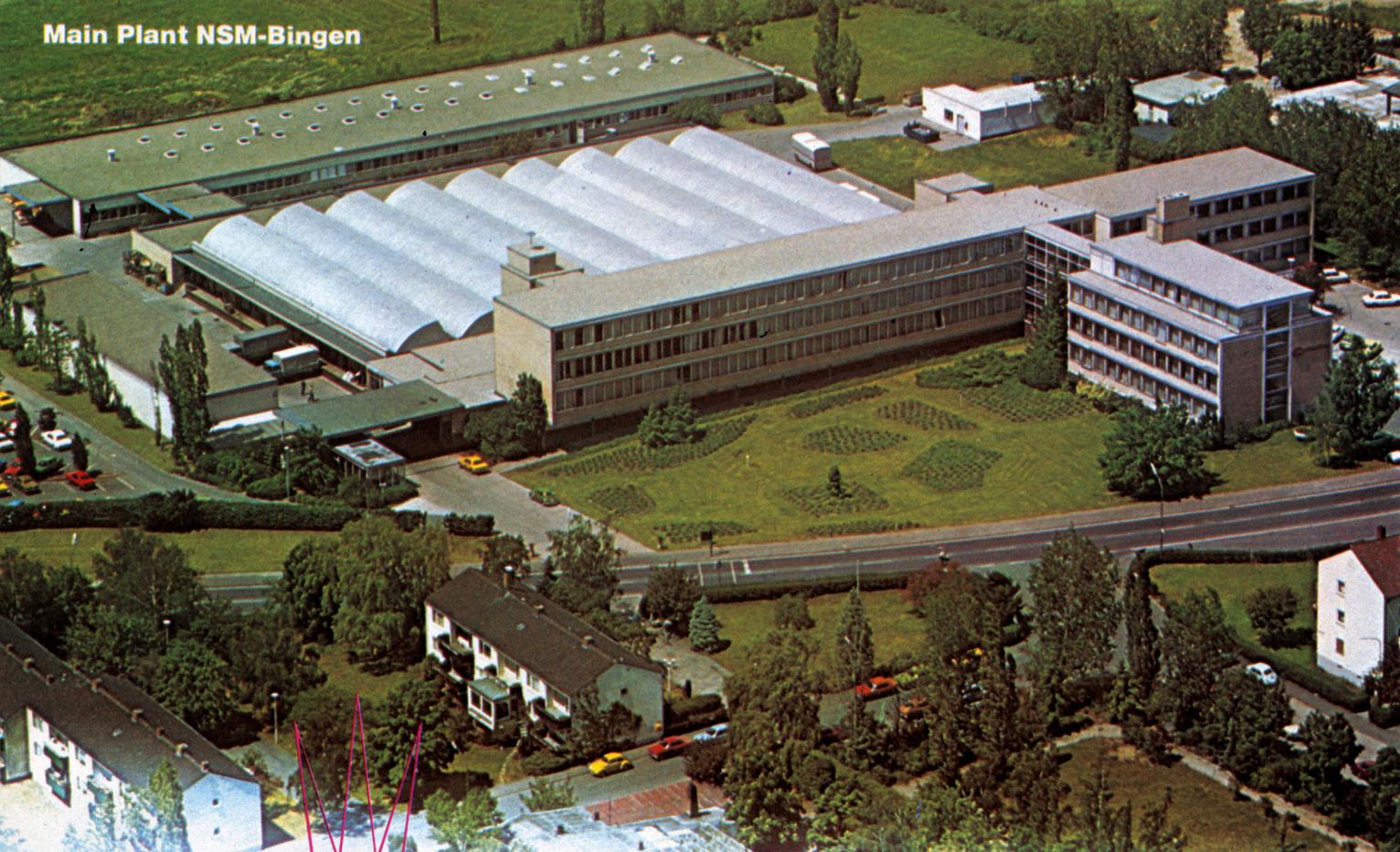
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PLAY METER UPDATE

Volume 3/ No. 20

October 10, 1977

"Lucille" sweeps JB Awards

For the first time in the 28-year history of the JB (jukebox) Awards, one recording artist has walked off with three honors.

Kenny Rogers, for his hit single "Lucille," which is on the United Artists' label, won the JB Awards for record of the year, top country record of the year, and artist of the year. The announcement was made recently by Fred Granger, executive vice president of the A.M.O.A. The A.M.O.A., which will make the awards presentation at its annual convention in Chicago later this month, each year asks its members to nominate the five records which made the most money for them in their jukeboxes. This year there were sixteen candidates selected by the awards committee, but the final balloting was done by the membership of the A.M.O.A. In addition, each member was asked to nominate

his choice of artist of the year. The five categories for this year's awards were top pop record, top soul record, top country record, top recording artist of the year, and record of the year. The record of the year goes to the record which A.M.O.A. members vote for as having made the most money in their jukeboxes.

Recent record of the year awards have gone to Freddy Fender for "Wasted Days and Wasted Nights" (1976), Freddy Fender for "Before the Next Teardrop Falls" (1975), and Charlie Rich for "The Most Beautiful Girl in the World" (1974).

The winner of this year's top soul record of the year went to "Car Wash" by Rose Royce of Warner Brothers. The top pop record of the year was Glen Campbell's "Southern Nights" which is on the Capitol Records' label.

Also, a special posthumous award was given to Elvis Presley for his contribution to the jukebox industry. Said Fred Granger of this award: "It was a special award that will probably never be given again to any other performer."

The other leading candidates for this year's JB awards are as follows: Jimmy Buffett, "Margaritaville"; Leo Sayer, "You Make Me Feel Like Dancing"; Fleetwood Mac, "Dreams"; Engelbert Humperdinck, "After the Lovin'"; Waylon Jennings, "Luckenbach, Texas"; Rod Stewart, "Tonight's the Night"; Eagles, "Hotel California"; Barbra Streisand, "Evergreen"; K.C. and the Sunshine Band, "I'm Your Boogie Man"; Waylon Jennings and Willie Nelson, "Goodhearted Woman"; Stevie Wonder, "Sir Duke"; Marvin Gaye, "Got to Give it Up"; Stevie Wonder, "I Wish."

Bally appoints field engineer

Darrell J. Blendowski, former products engineering manager for Electro Games, Inc., has joined Bally's marketing department as marketing field service engineer. He will be on the road, teaching service schools on Bally's new electronic pinball games—Evel Knievel and Eight Ball.

Blendowski's background in electronic production testing, electronic video game design, and teaching many electronic service schools, said a Bally spokesman, will be a valuable asset to Bally's marketing field service organization.



The newly-elected officers of the Georgia Amusement and Music Operators Association (G.A.M.O.A.) are as follows (from left, bottom row) Frank Cannon Jr., president, and L. Lee Martin, secretary; (from left, top row) John Martin, treasurer, and James Creus, vice president. The Georgia association formed in August of this year.

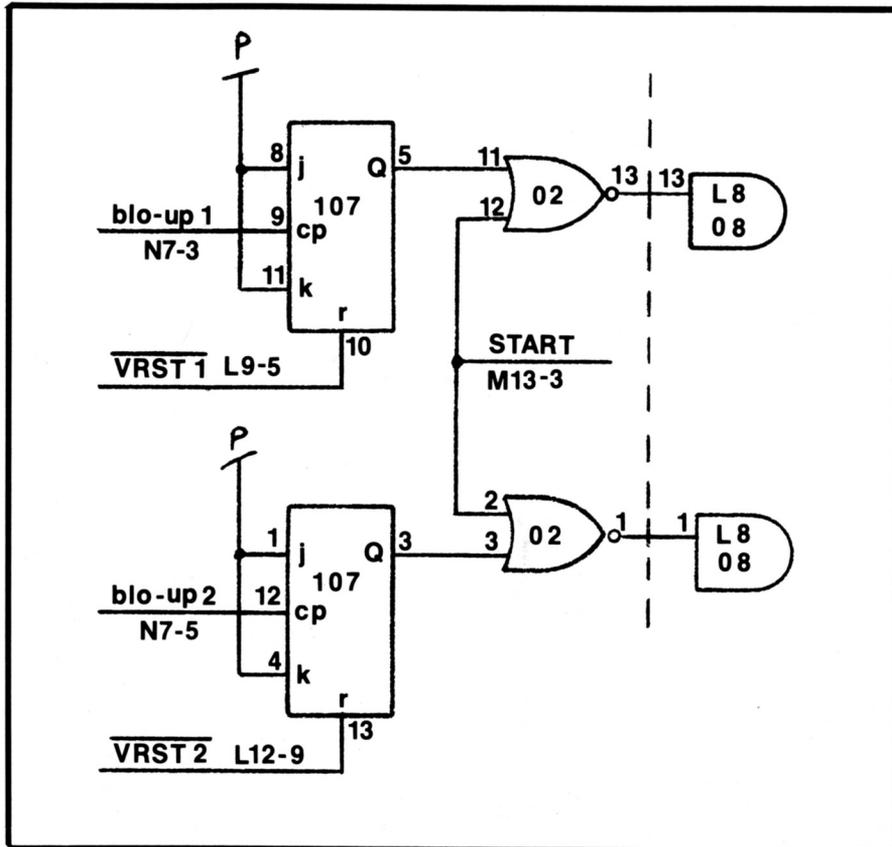
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Supertank modifications



Since the Supertank modification was published in June of this year, operators across the country have been finding new earning power in their games. By performing a few simple changes, weekly collections have been *doubled* for considerable periods of time. In fact, one of our local operators claims that his modified tank has made a minimum of 600 extra dollars over the summer alone! (Those of you that haven't as yet modified your own games, take note!)

Because of Tank's versatile design, a number of different modifications can be performed. This month, we'll take a look at two more modifications that can be used in addition to the Supertank mod. These new modifications can be performed separately or together to help snatch up the quarters that are floating around in the lint ridden pockets of America.

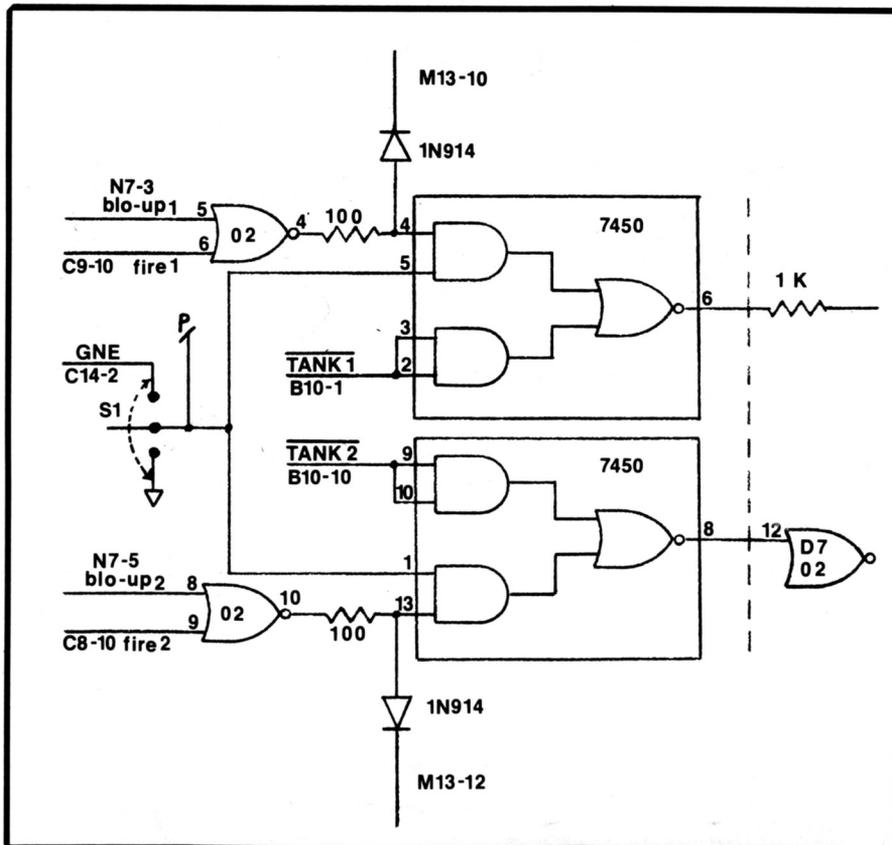
MODIFICATION ONE

As a not-so-good Tanksman (Tanksperson?), it has always frustrated me that my opponent is able to zero in and bombard the heck out of my Tank at close range. As soon as I recover from one explosion I get hit again. I'm forced either to turn tail and run, or face my opponent and exchange hits for the remainder of the game.

This first modification will cause a destroyed tank to disappear after being hit by a shell or running into a mine. A new tank will then appear in the starting position and play resumes as normal. This creates a new strategy for the experienced tank player, as well as giving less equally suited opponents a more enjoyable use of the game.

The circuit itself is quite simple (see Figure One). We'll look at the circuit for Tank 1 only, since the circuit for Tank 2 is identical. When a tank is hit or runs into a mine, blow-up goes high, and initiates the explosion sequence. After a time delay, blow-up goes low and clocks a high out of the Q output of the 74107, J-K flip flop.

This high is nored with the high going start signal so that either a new game or a tank explosion will reset the tank. The output of the nor gate is used, via L-8 (the out of



bounds detector) to reset the flip-flops at L-9.

The outputs of these flip-flops are used to reset the motion counters so the tanks appear in the starting position. When VRST occurs, the 74107 is cleared and Q goes high again.

1. Clip & lift L8-13 (underside of the board).

2. Clip & lift L8-1 (underside of the board).

3. Piggyback a 7402 on I.C. L8. Leave pins 7 and 14 down and solder to the corresponding legs on L8.

3A. Solder 7402 Pin 1 to lifted pin L8-1.

3B. Solder 7402 Pin 13 to lifted pin L8-13.

4. Piggyback A 74107 I.C. on a chip near L8. I used position M8. Put down pins 7 and 14 only.

5. Add wire between 74107 pin 5 and 7402 pin 11.

6. Add wire between 74107 pin 9 and N7-3.

7. Add wire between 74107 pin 10 and L9-5.

8. Add 100 ohm resistor between 7402 pin 4 and 7450 pin 4.

9. Add wire between 74107 pin 12 and N7-5.

10. Add wire between 74107 pin 13 and L12-9.

11. Tie pins 1, 4, 8, and 11 of 74107 to a pull-up resistor (there can be one common resistor for all 4 inputs).

12. Add wire between 7402 pins 2 and 12.

13. Add wire between 7402 pins 2 (or 12) and M13-3 (start).

MODIFICATION TWO

The second modification creates a "Blackout Tank" game. During this mode of operation the tanks are invisible while at rest and are made to appear when firing a shell of exploding. When the tank is in motion, it will flash on and off in proportion to its speed. Switch S1 can be mounted on the game, allowing players to have the option of "Blackout Tank" for the entire game, during the last time period only, or disabled completely. This switch is a single pole, double throw, center-off type.

When I do this modification, I add the 7450 at position B10 and leave pins 7, 10, and 14 down. If you want to cheat a little, you can bend pin 2 of the 7450 so that it can be soldered to pin 1 of B10 (Tank 1). The two nor gates are left over from the first modification (see Figure Two).

1. Cut off pin 2 of B10. (This is the Tank 1 output to the video summing network. We'll be gating the tank

signal and spitting it back out later in the mod!).

2. Clip and lift D7-12.

3. Add wire between 7402, pin 8 and N7-5.

4. Add wire between 7402 pin 9 and C8-10.

5. Add wire between 7402 pin 5 and N7-3.

6. Add wire between 7402 pin 6 and C9-10.

7. Add 100 ohm resistor between 7402 pin 10 and 7450, pin 13.

8. Add 100 OHM resistor between 7402 pin 4 and 7450 pin 4.

9. Add diode between 7450 pin 13 and M13-12 (cathode end of diode to M13-12).

10. Add diode between 7450 pin 4 and M13-10 (cathode end of diode to M13-10).

11. Add wire between 7450 pin 8 and D7-12.

12. Add wire between 7450 pin 6 and pad of B10-2 (I told you we would get around to it!).

13. Add wire between 7450 pins 1 and 5 and pull-up.

14. Add wire between 7450 pin 1 (or 5) and center terminal of switch (common).

15. Add wire between one side of the switch and C14-2 (this is the "game near end" signal).

16. Add wire between the other side of the switch and ground.

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Troubleshooting cents

By Robin Minnear of the Game Doctors

To be a field serviceman these days, one must be aware of the basic relationships between, and the physics of every technology level imaginable. Although a complete understanding of high-speed micro-processor implementation, sophisticated analog sound generation or mechanical-optical extravaganzas is not a prerequisite for field service, one must understand the real-world purpose of each functional block in order to determine the correct operation of that block.

Because a route man is exposed on a day-to-day basis to multi-level technologies, confusion is often created which causes one to overlook obvious faults. In addition, most routemen have had little or no education in these areas and most are not properly equipped.

Constant exposure to this type of situation often creates negative attitudes towards the equipment which often hinders one's judgement.

Once a negative attitude takes over, you can forget about finding a solution to your problem.

I have observed many situations where a serviceman is already thinking about leaving a location before he has even entered it. This usually leads to a cameo appearance at the machine where he quickly diagnoses it as a problem he can't repair. The result is loss of time and money because of a faulty power cord or possibly a loose or broken connector.

By and large the majority of equipment failures are not sophisticated solid-state problems. It's important not to get hung up in the technology and abandon your common sense. Work on developing an emotionless, sound troubleshooting procedure.

As an example, a Bally Night Rider came into my shop recently. The complaint was that one bumper would not energize. The operator had replaced first the solenoid driver board and then the MPV Board. The problem turned out to be a cold solder joint on the solenoid.

Had this been an electro-mechanical pin, I'm sure it would have been repaired on location. The operator assumed it was a solid-state problem.

Every mechanic/technician has his own way to troubleshoot equipment failures. What works for

one may not be the best way for another. However, there are some basic rules which may help to develop a sound troubleshooting procedure.

The following is an example of a procedure that works for me.

Number One: DEFINE THE PROBLEM—What's happening that shouldn't happen? What's not happening that should?

Number Two: VISUALLY INSPECT—Carry a good light and use it. Look closely at all connectors, cables that may hang in moving parts, interlocks and fuses.

Number Three: KNOW THAT YOUR POWER IS GOOD—Inspect wall sockets and extension cords. Proper grounding is a *must!*

Number Four: CHECK YOUR INTERNAL SUPPLIES—Learn to make voltage checks on all game power supplies. This means pulling the schematics and checking all the power busses, A.C. supplies (lamps), regulated and nonregulated supplies and the connectors associated with them.

Number Five: CHECK PLAYER CONTROLS—Look closely at all controls, pots, switches, coin switches and anti-cheat switches. Be sure they are wired correctly.

Number Six: SMELL, FEEL, LISTEN—Learn to use your other senses to troubleshoot. Familiarize yourself with the smell of burned capacitors and transformers. Feel devices for unusual heat, listen closely for arcing or buzzing.

Number Seven: IF POSSIBLE, SUBSTITUTE—Look around for ways to substitute modules. This is probably the quickest way to diagnose module failure. Make use of it whenever you can.

No one can fix everything. Don't pressure yourself by expecting too much. We're all limited by our education, equipment, and experience.

Start each repair with a clear head. Set negative thoughts and prejudices aside because they tend to distort logical deductive thinking.

Learn from your mistakes. Make an effort to follow up on problems you couldn't fix. Ask the person

who repaired it to explain what he did. Any competent person will be more than happy to explain repairs he performed.

If you know a person who is successful at repair, expose yourself to him as much as possible. Look closely at how he approaches the problems as opposed to the technical solution.

And don't overlook the obvious.

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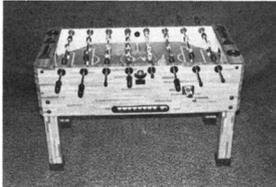
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Technical tips on Starship I

The following items will insure trouble-free operation of your Atari games.

I. The audio amplifier in use is the TDA-1004. During normal operation this device generates considerable heat. It is therefore important that the TDA-1004 has adequate heat sinking. The correct heat sink is a U-shaped piece of copper approxi-

mately one-inch tall. Atari P/N 009470-01. The heat sink is bonded to the IC with a compound called BIPAC TRA-Bond. Atari P/N 78-13016. The incorrect heat sink could result in damage to the PCB due to excessive heat.

II. To insure that the potentiometers are wired correctly and are working correctly on the Starship I controls, perform the following procedure.

1. Use a VOM (volt ohm meter) and set the dial to RX100. (OHMS scale).
2. Zero the meter by touching the probes together and adjusting the "zero ohms" dial so the meter reads zero ohms resistance.
3. Place black probe on pin #9 g control panel harness connector. Place red probe on pin #1 of connector.
4. Simulate a dive by moving flight control completely forward. When mounted in the game, this means pushing control wheel up. The VOM reading should be approximately 2.7 K ohms.
5. Simulate a climb by moving control all the back (down). VOM should read approximately 2.1 K ohms.
6. Place black probe on pin #7 and red probe on pin #2. Turn controls to the left (counter-clockwise). VOM should read approximately 2.1 K ohms.
7. Turn to right (controls fully clockwise). VOM should read approximately zero ohms.

III. On Starship I, to keep the linkage arm (P/N A009525-01) from binding and consequently from breaking, perform the following check and adjustment if necessary (see drawing).

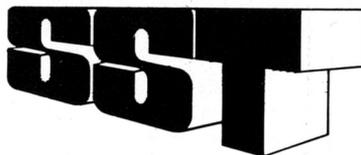
1. The two planes indicated must be parallel to prevent binding.
2. If these two planes are not parallel, loosen the two screws and the bracket will move. Adjust it as required and tighten the screws.
3. If possible, insure that the screws are torqued to 20 inch pounds + 1/2 inch pounds. This will insure that they do not loosen and cause misalignment problems.

— Fred McCord, field service, Atari, Inc.



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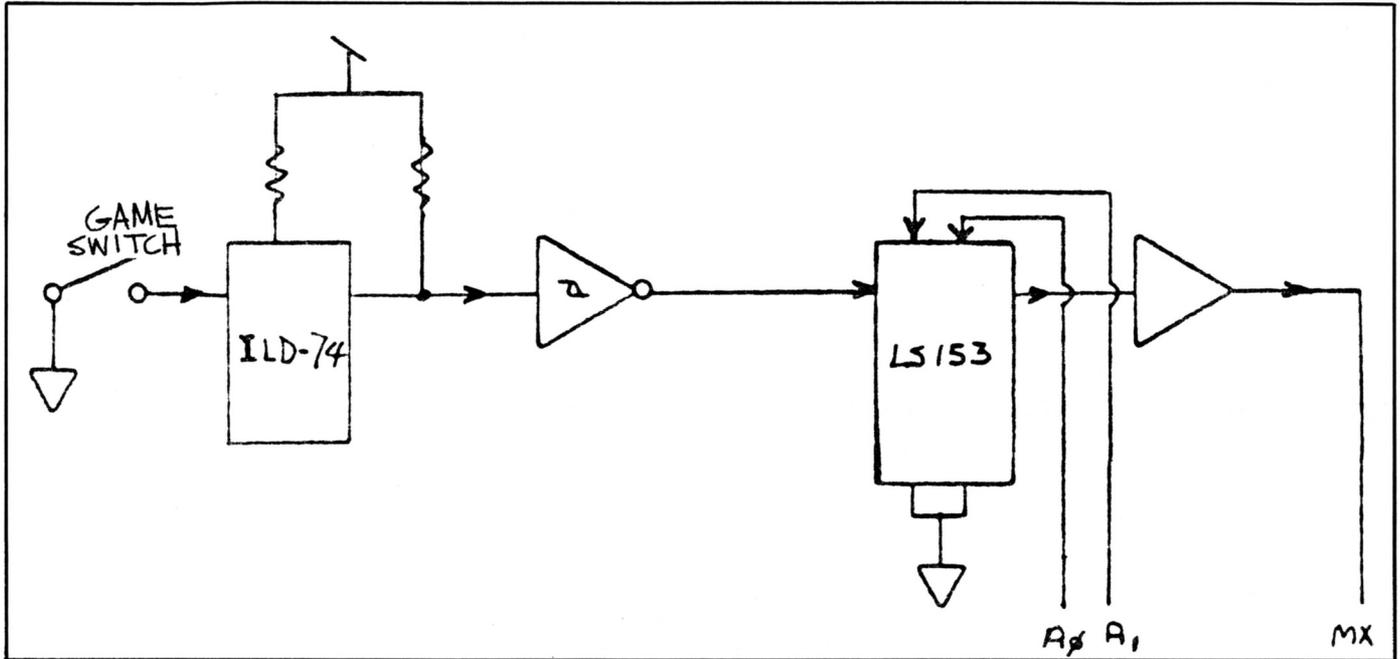
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The Logic Signature



For everything animal, vegetable or mineral there is a signature which will identify that mass. Each of us has a signature peculiar to ourselves. A microprocessor is no different, it too has a signature. Those elements, which make a signature peculiar to each microprocessor are the signals to be found on its pins.

To back up a second—a healthy inverter has a signature:



Its signature is as shown. Should we wish to determine whether this inverter is working properly we need only to take our Kurz-Kasch logic probe and examine the inverter's inputs and outputs. If they are as shown, then the device is an inverter, if not, then it is not performing as an inverter and has become something else, a pull up, pull down or a short.

Should you wish to cash a check, the bank will, if suspicious, compare your signature on file with the one on your check. If they match, then the check is authentic. A microprocessor can be validated or determined "authentic" by this same method. You have been given the logic signature for several microprocessor games.

By using the Kurz-Kasch 3 light logic probe, one can determine if the processor system is functioning in a valid mode. If it is not, the indications we get can determine where it is not.

Let us now establish a sequence of logic signature benchmarks.

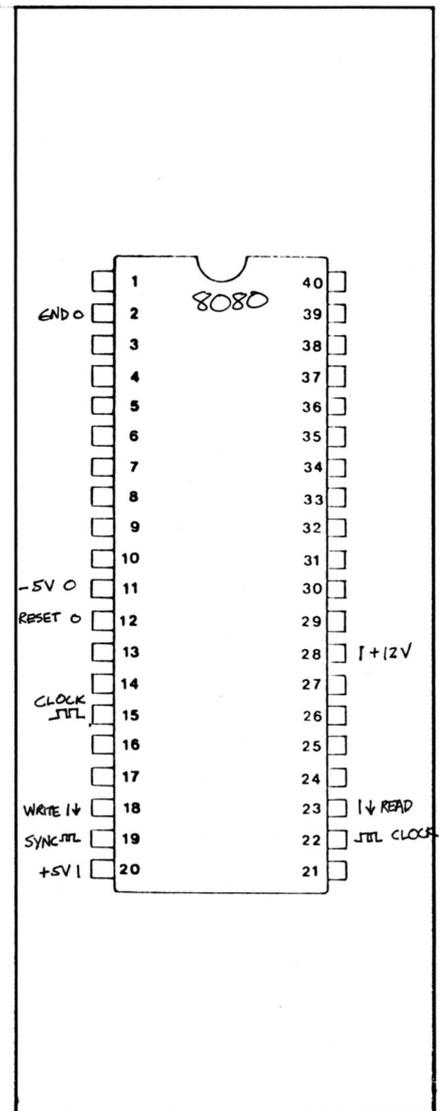
1. Check all voltage levels at the CPU pins.
2. Check clock inputs.
3. Check control outputs.
4. Check address lines.
5. Check data bus.

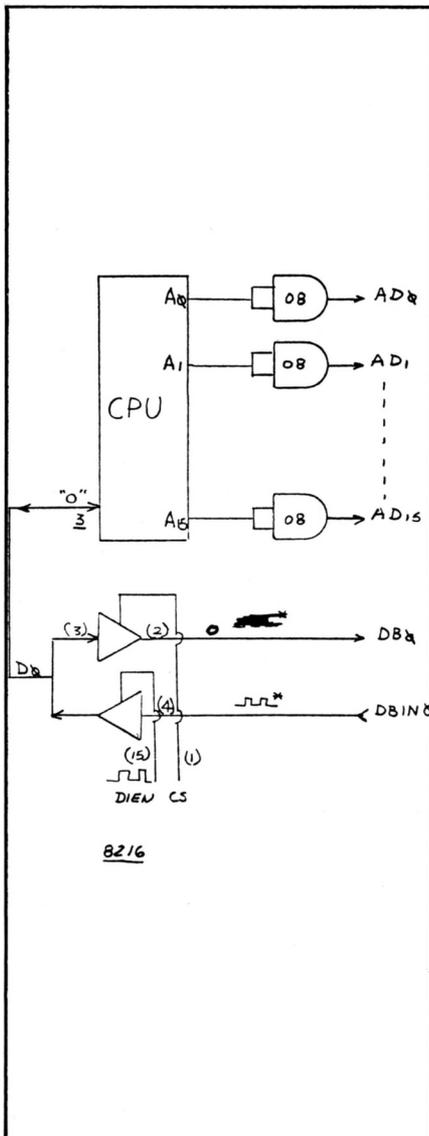
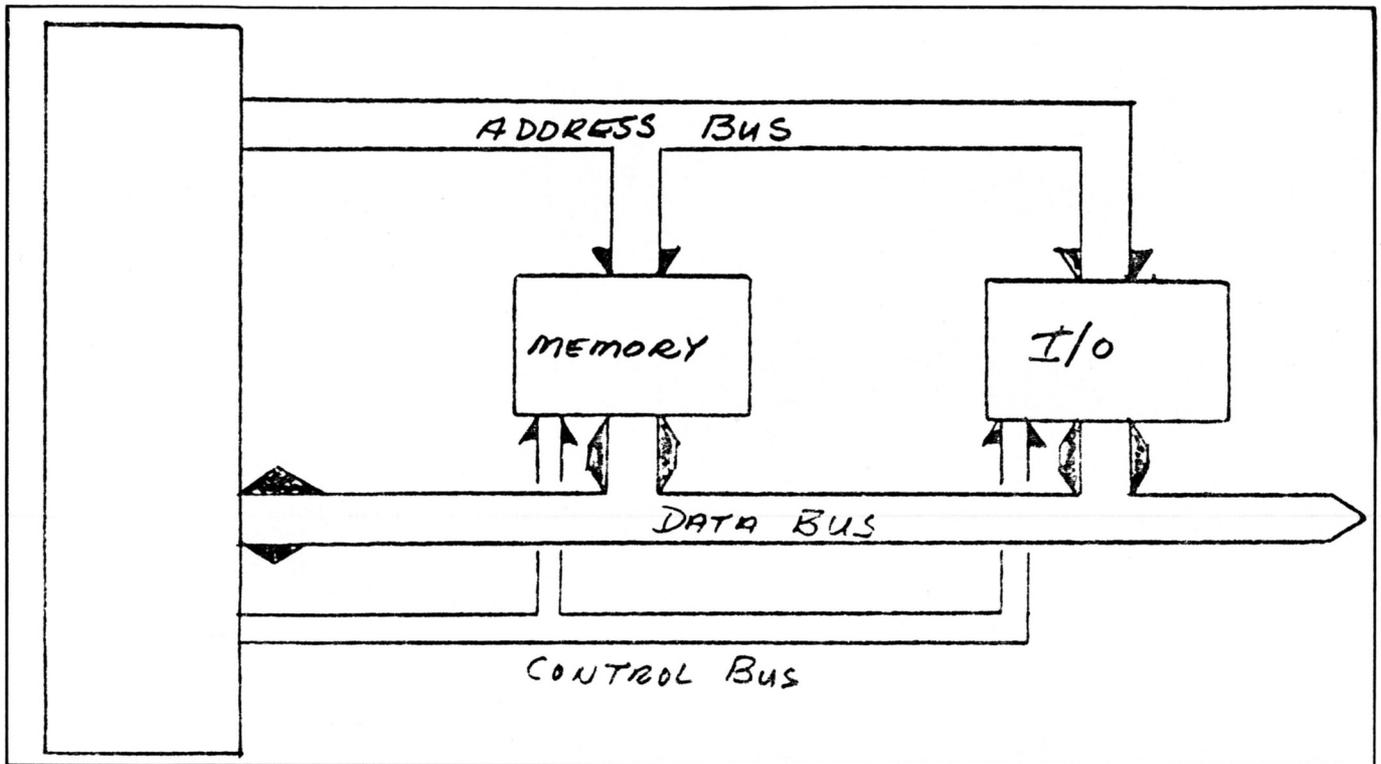
Let's look at an 8080 (figure 1) as found in a Gunfight or any of the Midway processor games following the above sequence:

1. Pin 2 (ground) 0
Pin 11 (-5) 0
Pin 20 (+5) 1
Pin 28 (+12) 1
2. Pin 15
Pin 22
3. Pin 12 0 going to deadband when reset or tilt is pushed
Pin 18 Write
Pin 19 Sync
Pin 23 Read
4. Address Bus
Pins 1, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39 & 40
5. Data Bus
Pins 3 through 10.

If all above indications are as noted on the logic signature card for that game, then the processor is working. Should you have game problems, then a peripheral is not functioning. What is a peripheral? Those are the interfaces between the processor and the outside world, a joy stick, pot or single switch along with its interface electronics becomes a peripheral (See Figure Two).

I have told you how to determine if the processor is functioning.





Suppose it isn't? I will take a most common failure in a processor game and we'll see what happens (Refer to Figure Three).

We will assume a stuck low at 8080 Pin 3 (Note: Use an LP-520 or an LP-610 in the single threshold mode). All other data pins will show pulse activity.

With the dual threshold mode on the LP-610, you will not see a pulse light on CPU data pins 3 through 10. All pins except 3 are pulsing, but the fall time is 40NS—outside the spec for a valid logic gate signal.

The 8216 bus driver will show pulsing as indicated.

A fault indication illustrated here indicates either pin 3 of 8080, pin 3 of 8216 (B-3) is stuck low or a short to ground of the PC trace between the two.

Lets pause a minute and see what makes up a microprocessor game. Look at Figure Four.

The basic system is composed of a CPU (central processing unit), memory (ROMS & RAMS), and an I/O (input/output to the world).

A CPU has a minimum drive capability—usually 1 TTL load. For this reason we must have interface gates. Figure Three shows the address and data bus interfaces for the 8080.

There are only 3 basic input and output bus lines associated with a microprocessor system and they are as follows:

Address Bus: This is a coded group of 1s and 0s which locate and identify certain locations of data in

the memory or the interface units.
Data Bus: A bi-directional path on which data can flow between the CPU and memory or I/O. This data is what ultimately winds up on the monitor.

Control Bus: The control signals memory read, memory write, I/O read, I/O write, interrupt acknowledge.

Here is the basic microprocessor operation: the CPU module issues an activity command on the control bus; the CPU issues a binary code on the address bus to identify which particular memory location or I/O device will be involved in the current process activity; the CPU receives or transmits data selected on the data bus; CPU returns for next cycle.

A fault on any one of the 3 bus lines will give a particular monitor presentation (stuck at 0).

Address Bus: Horizontal lines equal alternating white & black. Continual reset and or tilt will change data on screen somewhat but predominately doesn't change.

Data Bus: D-D10 (Processor pins) comes up horizontal equal but always goes blank on reset.

Control Bus: Write (pins 18) flashing screen with vertical lines. ROM Read: (pin 20 Roms) vertical lines. RAM Read/write: (pin 17 Ram) comes up vertical and usually blank screen on reset. RAM Data: (pin 7 of Ram) comes up garbage and goes to vertical lines on reset.



Wildcat's chemicals

Wildcat Chemical Co. Inc. is a fairly new company in the vending industry having had its start some 5 years ago. At that time a large vending operator in Fort Worth suggested that Wildcat produce a silicone designed for the new foosball market. Until that time, Wildcat had been manufacturing exclusively for the industrial market.

After testing numerous formulas, Wildcat finally came up with the formula that it felt produced the desired results. The product was so effective that Dynamo made arrangements to put a can of Wildcat Foosball Silicone in every table that was shipped from the factory. The story unfolds with a snowball effect in that several foosball manufacturers followed Dynamo's lead of placing Wildcat Foosball Silicone into their tables. And Wildcat Chemical Co. found itself in the vending industry.

Joe Peters, president of Wildcat Chemical Co., talks daily with operators and distributors across the nation with an eye toward new products for the coin industry.

Says Peters, "I'm not interested in mass production of a multi-purpose cleaning product. Any product that Wildcat manufactures is for a specific purpose relating to one or more vending machines. I feel that we are as responsible to the industry as any machine manufacturer. I believe that the manufacturers recognize this and that is why so many of them work so closely with us."

many of them work so closely with us."

Wildcat's #125 Pinball Playfield Cleaner, for instance, was developed to help the operator keep his pin playfields clean. He realizes that a clean machine is going to get more play and make him more money. Periodic maintenance with #125 will keep the playfield in excellent condition thus bringing a higher resale value when you decide to sell a machine, Peters added.

Bally is one pinball manufacturer that has recently recommended #125. "It is truly through Bally's efforts that Wildcat has now become an international company," acknowledged Peters. "Within the next few months we will have our distributors in overseas markets stocked and ready to roll."

Wildcat Chemical Company recently moved into its new plant at 1349 East Seminary Drive, Fort Worth, Texas. The new plant has given them the expanded manufacturing facility to keep up with the ever growing needs of our industry. Peters has even added a special room built next to his office, his own private arcade.

At the AMOA (booth #42) Wildcat will be introducing a new line. Although they will still have their complete aerosol line many of their products will now be available in super spray mist. The super spray mist was designed to keep in line with the need for environmental protection.

C.A. Robinson hosts service school

C.A. Robinson Distributing of L Angeles hosted yet another service school recently, this one for instruction on Time 2000, Atari's solid state pinball game.

Fred McCord of Atari was the teacher of the two-day seminar. Other Atari representatives were Gi Williams, Frank Ballouz, Don Osborne, Eddie Boasberg, Don Smith, Phil Stewart, and Dave Tucker. Representing the host distributor, C.A. Robinson at the school were Leah and Al Bettelman, Hank Tronick, Ira Bettelman, and Sandy Bettelman. The attendance for the two days of the school was listed at 300.

Atari magic show

Atari will be presenting a magic show at the AMOA this year. They will feature the preview of seven new adventures into coin-op amusement. In addition, on Saturday, October 29, you can meet Atari's surprise master of magic at the Atari booths in the West Room of the Conrad Hilton (16-23 and 26-33).

The stars of the show will include Airborne Avenger, Atari's most exciting pinball game yet; Destroyer, a one-player video sea action game; Starship I, the cosmic battle game that has already surpassed many income records; Super Bug, the new, challenging rally racing game; and many more new and exciting products will be introduced. There will be some of the other current popular games on display as well, such as Breakout, Sprint 2, and Time 2000.

The magic show will continue at the IAAPA in New Orleans, where Atari will introduce for the first time a completely new concept in coin-operated amusement. This spectacular premier attraction is certain to "mystify" the industry.

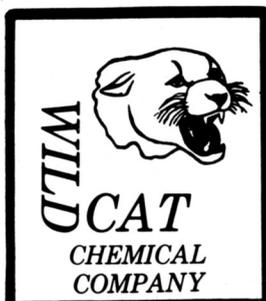
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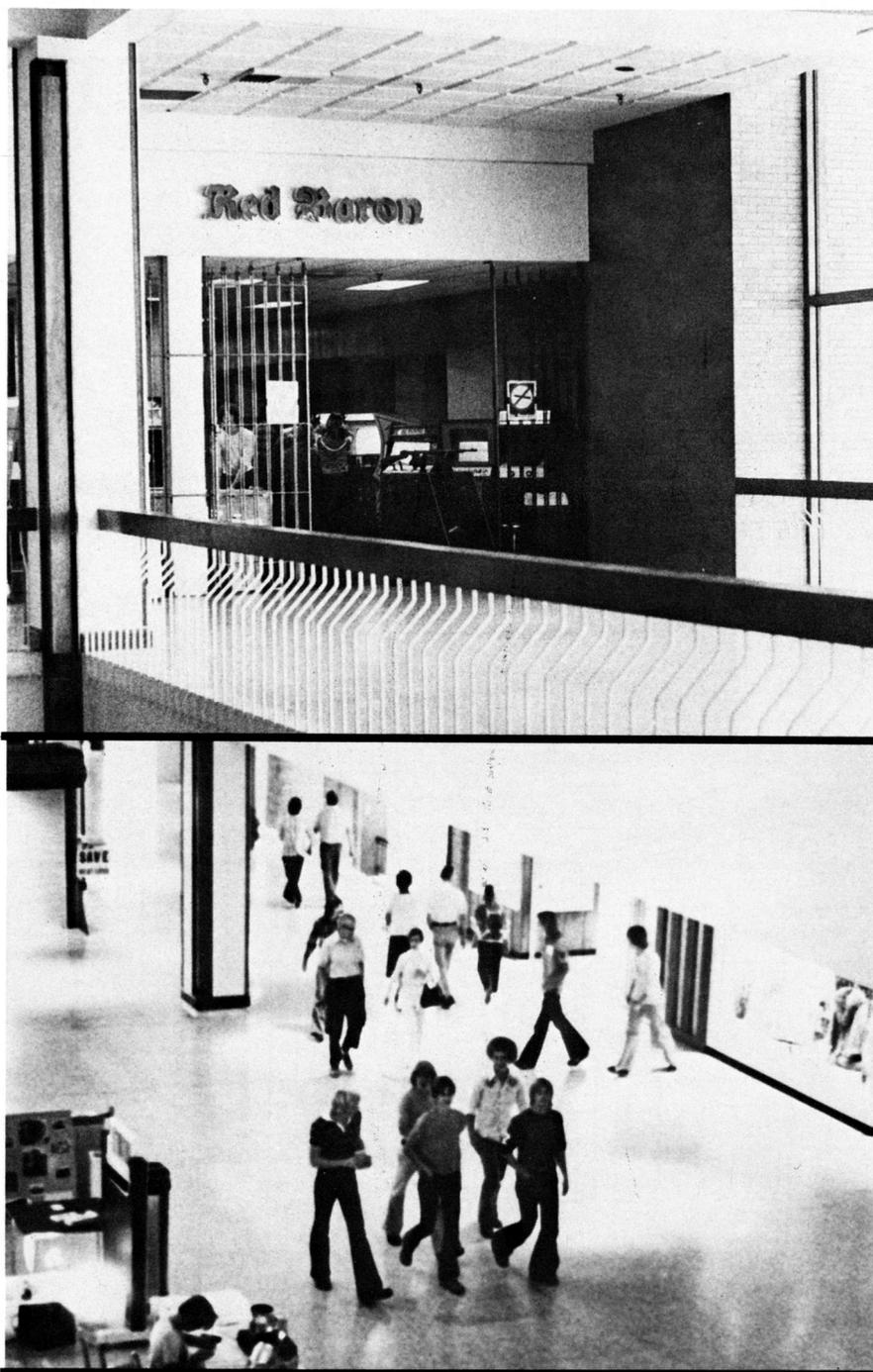
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By Joe Fucini

Traffic and the Super Mall

Question: What does your arcade need more than anything else?
 Answer: Traffic, traffic and still more traffic!

Let's face it, without a high volume of walk-in traffic, an arcade's chances of making it are about as good as a 4'2" Pygmy's trying out for the Boston Celtics.

People feed coins to machines. The more people, the more coins—and the better an arcade's business.

Nowadays, no place has more traffic than the enclosed super-malls do. Sure the rent's astronomical, but that's where the people are—and that's just the kind of place an arcade flourishes in.

A case in point is Red Baron Amusements, Inc. The Milwaukee-based company has 28 leased and franchised arcades, all of which are located in imposing, high-traffic malls.

"We wouldn't think of putting an arcade anywhere else," says Angus Young, operations manager of the five year old company. "We've chosen to go with malls because doing so offers many advantages and eliminates a lot of problems."

Red Baron's largest arcade is a 3000-square foot store in Dayton, Ohio's gigantic Dayton Mall. The Dayton arcade houses between 50 and 60 machines at any one time, and although its rent is a high \$7 per square foot, earnings more than make up for it. Young estimates that Red Baron's Dayton arcade grossed more than \$100,000 last year.

Young, who came to work for the company in 1974, supports Red Baron's "mall only" policy wholeheartedly. "The most obvious benefit is the traffic," he emphasized. "If a mall has good anchor stores, you can bet people are going to come out. Also, malls are always holding special events and shows. These bring out people who aren't necessarily there only to shop. These people inevitably wind up playing our machines."

Aside from delivering sheer numbers of would-be game players, a mall holds other delights for the arcade operator. For one thing, security is much less of a problem. Malls are locked and heavily patrolled at night. Because of this, they serve as a sort of "armed fortress," making it difficult for thieves and vandals to enter an arcade after operating hours.

If it's difficult for law breakers to enter a mall at night, it's not much easier for them to make their "get away" during the day. Being enclosed, malls don't provide the available escape routes criminals find in back alleys and side streets.

Another security advantage is the "tree alert system" many large malls employ today. In this system, a description of a vandal, shoplifter or robber is broadcast over CB radio or walkie talkie to every merchant in the mall, the mall's security force, and the detectives at the anchor stores. Through their broadcasts, mall merchants and security personnel keep tabs on the perpetrator's movements until he or she is apprehended.

"I would say that the mall acts as a buffer between the arcade and troublemakers," noted Young. "Someone who's up for trouble finds the large malls intimidating,

and the security force is often able to stop things before they happen."

Despite the hefty rent, malls do offer several purely economic benefits to arcade operators. To begin with, you don't have to spend money on promotions or compatible businesses such as refreshments to draw customers. Since most of the stores who populate malls are part of large retail chains, you can rest assured that their advertising will bring in all the customers you need.

An arcade can also get away with keeping a few older games around, even though they may have lost some of their popularity, if it's located in a popular mall. "Our arcades fill up a lot because of the mall traffic," says Young. "When we're full, someone's bound to play the older machines, simply because they're the only ones available. Of course, you couldn't keep too many older machines around or you'd lose business."

Red Baron is so high on the super-mall that it will only locate in ones with a million square feet of space or more. "We wouldn't go into a small enclosed mall, because that would defeat the purpose of being in a mall in the first place," explains Young.

The company always tries to be

an original tenant of a mall, contacting the developer before construction is completed. The feeling is that "getting in on the ground floor" allows Red Baron to modify its stores to its specific needs.

One thing the company always looks for before deciding on locating in a mall are the anchor stores. If a large national department store chain decides to set up shop in a new mall, Young and Red Baron president Dan Winter know it's going to be a good site.

"We knew this was going to be a high traffic mall," said Young, speaking at the company's Dayton arcade. "Sears, J.C. Penney, and Federated decided to put stores here. They do extensive market research, so they know where the consumers are going to be."

Red Baron's arcade in the Dayton Mall has several other good things going for it. Across the corridor are two movie theaters and a popular pizzeria. Two more theaters are located about 40 yards away. As you probably guessed, the restaurant and movies draw an army of teenagers. How's that for an arcade operator's dream come true?

"When a movie that's popular with high school and college kids is

playing, the line goes right past our entrance, and people have someone hold their place and play our machines while they wait to get into the movies," said Young.

Alas, all is not necessarily fun and games (and profits) in a super-mall. Most super-malls require a 10-15 year lease, and by now you know their rents are expensive. So if your arcade is located in a mall that fails, and some do, you're stuck with high rent and not as much traffic as you expected.

All in all, though, malls can be a gold mine for the arcade operator. The traffic, the exposure, the reduced vandalism, etc., make them too good to overlook, even with the tremendous overhead.

So if you're thinking of opening a new arcade, think mall. If malls are too rich for your blood—well, still think mall. Evaluate a prospective arcade site in terms of how it compares to a mall. Does it have consumer-drawing shops nearby? Are large national chains locating in the area? Is the site too accessible or are escape routes too available for robbers, thieves and the like?

In the final analysis, a mall is good for your business only if it offers these advantages—and the same goes for any other location too.

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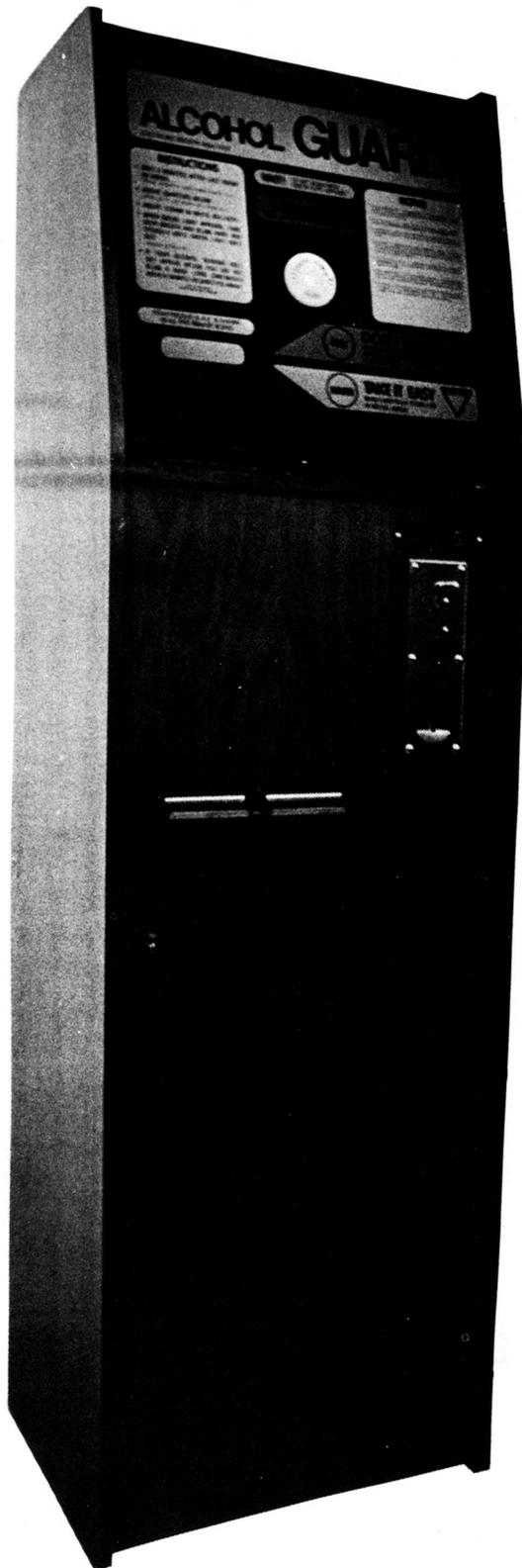
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Indianapolis, she would guarantee ten students. That school ended just last week, and we've started one in North Carolina which will be over soon. We try to get twenty students for each school because that way we can keep the tuition low. Right now, the tuition is \$150.

PLAY METER: The school runs for ten days doesn't it?

GARRETT: That's right. Don Miller, who used to have a school with Jack Moran in Denver, Colorado, is the instructor. He was giving two-week schools, but he was teaching five days at a time—with Saturdays and Sundays off, and then the next week he'd teach five more days for his ten days. So when I happened to meet him at a state association meeting in South Carolina, I asked him if he would be interested in holding a ten-day school for the AMOA but letting it run right through the weekend, and take in Saturday and Sunday. That way it would decrease the time that the operator would have to do without his man. It would also decrease the hotel expenses and all that. Well, Don Miller said he would try it, and I'm glad to report that it's been working just fine.

PLAY METER: Does the AMOA plan to continue these schools in the future?

GARRETT: Yes, we will continue with this just as long as it is successful and we are getting our twenty students, which is the break-even point for the AMOA. Hopefully, at a later date, we will continue with this as the students progress and we'll be able to go to solid state and teach something there. I will say this, the distributors are really getting on the ball with this idea. More and more of them are holding schools. And manufacturers like Bally and Atari and Midway and Kurz Kasch have really been helping in this area too. I think everyone sees the need for qualified help in this area. We have a labor shortage of good servicemen at this time, and it's something we've got to work on. It's a field that's wide open for a young man, especially if he's interested in electronics because in a year or so everything will be solid state. I understand, for instance, that the pin game Williams will be showing at the AMOA show will be solid state, as will be the game Gottlieb will show. In jukeboxes, AMI is solid state now, and the German jukebox NSM is solid state; so it appears that everything is moving in that direction, and it will require some good men to handle the service end of this.

PLAY METER: Speaking of the AMOA show, how has the show been shaping up for this year?

GARRETT: Fred Granger (AMOA executive vice president) has been busier than ever before handling the requests for space. We've had to take on additional space for this year's show. We've taken in everything we had last year, and we've added even more. Last year's show was the largest yet, but this year's has grown even bigger than that one. Last year we had over 5,200 people registered, and this year, I'm expecting a much larger turnout than that.

PLAY METER: What about the timing of the show? Are there any plans to move it to another time slot or is the AMOA satisfied with where it is?

GARRETT: The feeling is we've got to get the best dates possible. It has taken us about five or six years to work ourselves into the position that we are in, and we feel like maybe the third week in October or the fourth week in October would be the best time. Last year's show was in November, and I felt that that was a little bit too late. But this space is booked so far in advance, as much as four and five years ahead of time, and we just had to work out our way in this particular time.

PLAY METER: How has the membership done over the past year. Is it growing still or is it holding at about the same?

GARRETT: The membership is growing, it's increasing every year. We now represent between 15 and 18 percent of all the operators in the United States, and our total membership this year represents about a ten percent increase over last year's membership figure.

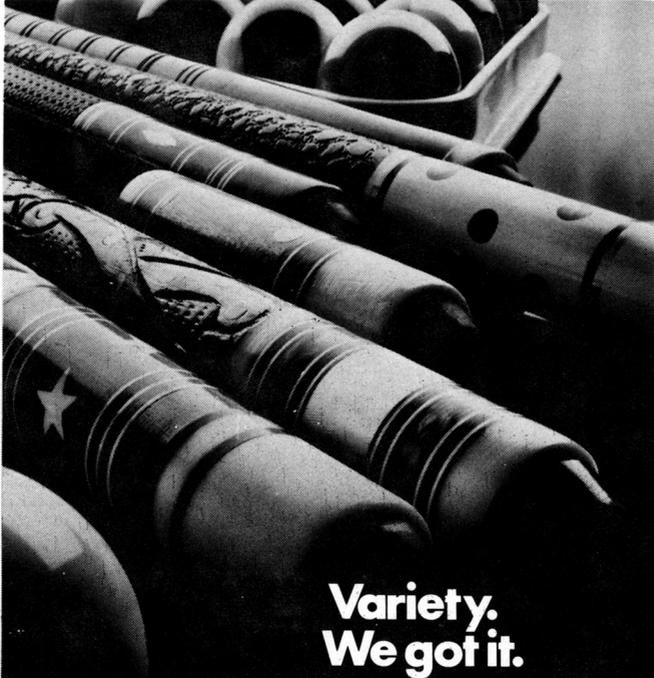
PLAY METER: What is the fee for joining the AMOA?

GARRETT: The fee is honorary. When I say honorary, that means you are on your honor as to what dues you will pay. The fee is by levels according to the number of machines each operator owns. For under fifty machines, the fee is \$50; from fifty to 100 machines, \$150; from 300 to 500 machines, \$250; from 500 to 750 machines, \$300; from 750 to 999 machines, \$400; and anything over 1,000 machines is \$500 per operator. But I'll tell you what is the really wonderful thing about our organization. Fred Granger tells me that he receives so many checks from different companies that voluntarily raise their dues. And this is a fact. The people voluntarily raise their dues to the appropriate figure when they move into a new machine classification. And this is the rule rather than the exception, this is just something that happens.

PLAY METER: You've visited many of the state associations over the past year as president of the AMOA, how is membership running for them?

GARRETT: Real good. I think adversity brings about understanding and unity in people. This is true even with a family. And I think with the copyright legislation that is coming up, some of the people that probably didn't even realize what was going on will, I think, wake up and realize what has happened. And when they do that, they will join the AMOA and their state associations. And they are going to help in every way possible. I firmly believe this. I don't think people want a free ride, though some of them have been getting one. I just think they are going to join the AMOA eventually and make this a much stronger organization than it already is. This fact has been proved out by the fact that two more state associations have been formed within the past year, one in Tennessee and one in Georgia. And recently I talked to gentlemen from Kentucky and West Virginia, and they are very much interested in forming state associations too. I would also like to add that from my traveling around to these various state associations, I have become impressed with the caliber of people in this business. The presidents of the two new state associations are good examples of what I mean.

PLAY METER, November, 1977



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John Estridge, who is the president of the Tennessee association, is a very fine man and I found him a pleasure to work with. And Frank Cannon, Jr., who was elected the president of the Georgia association is one of the finest men I have ever known. These two men represent the fine caliber of men in this industry. To give you an example of what I mean, when I was at the Georgia organizational meeting, one of the principals involved in the formation of that state association came to the meeting late. He said the reason was that he had been to church. He said he was sorry he was late, but he didn't miss church for anything. That's what I mean about the caliber of men we have in this industry.

PLAY METER: Have you noticed a change in the public image of the industry?

GARRETT: Imagewise, now, I think, our business is just as well respected as almost any other business you can think of. My state association, for instance, recently made contributions to two homes for orphaned and abandoned boys. We donated some equipment to them, and it's things like that that we should all be doing. You know, we all talk a lot about our image, but sometimes we think too much about taking. We've got to give some too, and I felt this was an excellent example of doing just that. I'll give you another example of why I think our image is changing for the better. Some of us operators in North Carolina were approached by a Baptist church about putting some equipment in an activities building the church had. We put in a pool table, a video tennis game, a foosball table, a shuffle alley, a pin game, and a jukebox. And they were really elated over that. There was a time not too long ago when a church wouldn't have let you put those kinds of things in a church building.

PLAY METER: Can you tell us something about the Notre Dame seminar and how it is progressing in your eyes?

GARRETT: I think it's really remarkable the way the professors at that seminar have taken hold of our business and have learned as much about it in the few years they've been holding these seminars. Some of the instructors have, in fact, even gotten out in the trucks and ridden the routes along with the routemen and have found out some things about the business which are very helpful, things like the time it takes to service a location. And they've been able to give us a breakdown of what it would cost to stop at each location. They have also gotten into another phase of the business where you go into a location where the man doesn't have any equipment and you sell him on the idea of putting some equipment in. If the location owner says he doesn't have enough room, you can just by showing him if he'd move a few tables around he does have the room. This will be a portion of an upcoming seminar by Dr. John Malone who will be speaking at the AMOA show on "Salesmanship: The Road to a new Business."

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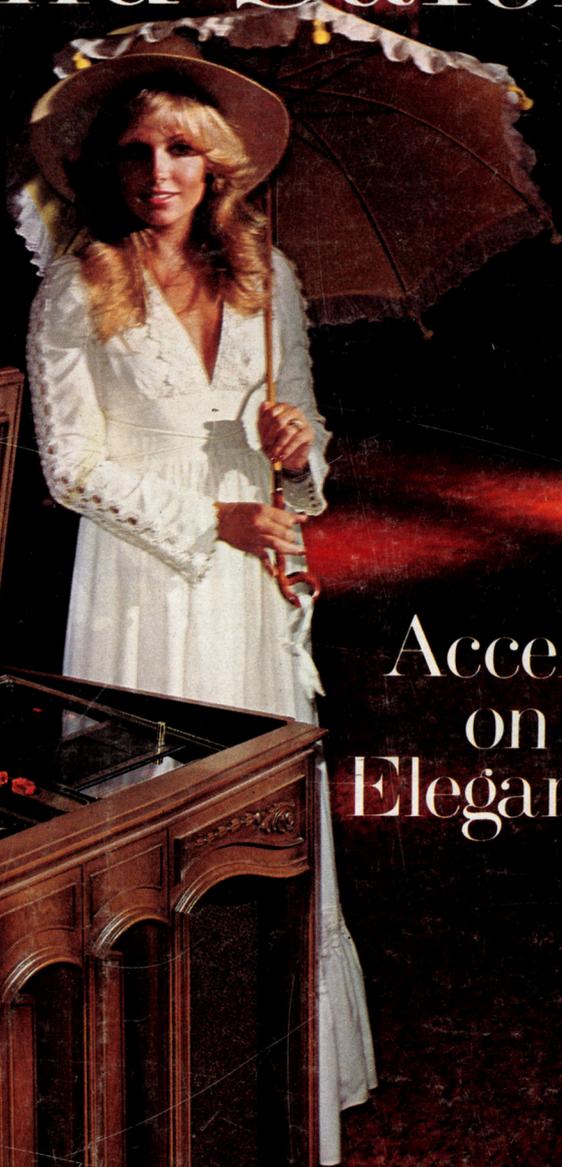


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